



CR Bldg Materials Tech

2024 Sustainability Report



Advancing with the Era
Forging New Achievements

Introduction to the Report

This marks the third sustainability report published by China Resources Building Materials Technology Holdings Limited ("CR Bldg Materials Tech"), following the release of 11 previous sustainability and social responsibility reports. Upholding principles of materiality, quantifiability, balance, and consistency, this report describes in detail the highlights of CR Bldg Materials Tech's practices in sustainability management and fulfillment of economic, employee, customer, environmental, partner and public responsibilities in 2024.



Scan the QR code to access past reports

Reporting Time Frame

The content of this report covers the period from January 1, 2024, to December 31, 2024. Any information beyond this timeframe is clearly marked.

Appellation Description

For ease of expression, references to "CR Bldg Materials Tech", "the Company", or "we" in this report collectively refer to "China Resources Building Materials Technology Holdings Limited and its subsidiaries".

Data Description

All data in this report are sourced from official documents and statistical reports of CR Bldg Materials Tech. The 2022 consolidated financial statements were audited by Ernst & Young, while those for 2023 and 2024 were audited by KPMG. The Company affirms that this report contains no false records, misleading statements, or material omissions.

Preparation Procedures

This report was prepared in accordance with the aforementioned reference frameworks, following a structured process that includes peer benchmarking, questionnaire surveys, data collection, information verification, report drafting, and management review, to ensure the completeness, accuracy, and balance of the content.

Report Access

This report is available in both Chinese and English electronic versions (in case of minor discrepancies, the Chinese version shall prevail) and can be downloaded from the Company's official website.

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Reference Frameworks

Global Reporting Initiative (GRI) Sustainability Reporting Standards
Environmental, Social, and Governance (ESG) Implementation Principles (ISO ESG IWA 48)
The Guide for Business Action on the SDGs (SDG Compass)
Guidance on Social Responsibility Reporting (GB/T36001—2015)
Appendix C2 Environmental, Social and Governance Reporting Code of the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited
Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR 4.0)
Guidelines on Corporate Sustainability Reporting for Chinese Enterprises (CASS-ESG6.0)
Reference Index System for ESG Reports of Central Enterprises Controlled Listed Companies
Corporate Guidance on Social Responsibility of Cement Enterprise
Guide for Corporate Social Responsibility Reporting of Cement Enterprises of China Cement Association
Social Responsibility Evaluation Index System of Cement Enterprise
Guidelines for ESG Reports of Building Materials Enterprises
China Resources Group Management Measures for Social Responsibility
China Resources Group "1+N" Social Responsibility Index System Management Manual

Preparation Principles

Materiality:By conducting a materiality assessment, we identify and report CR Bldg Materials Tech's significant sustainability topics based on the impact on stakeholders. Greater emphasis is placed on addressing and disclosing topics of higher materiality.

Quantifiability:Key performance indicators (KPIs) for sustainability are presented in measurable terms wherever feasible, with a three-year comparative analysis provided. The KPI data in this report is sourced from relevant departmental statistics, and the calculation methods for quantitative KPIs are disclosed within the report.

Balance:This report presents an objective reflection of both positive and negative indicators, showcasing CR Bldg Materials Tech's sustainability performance. At the same time, the Board of Directors is responsible for reviewing this report to ensure that the positive and negative indicators in the report truly reflect the sustainable development of the Company.

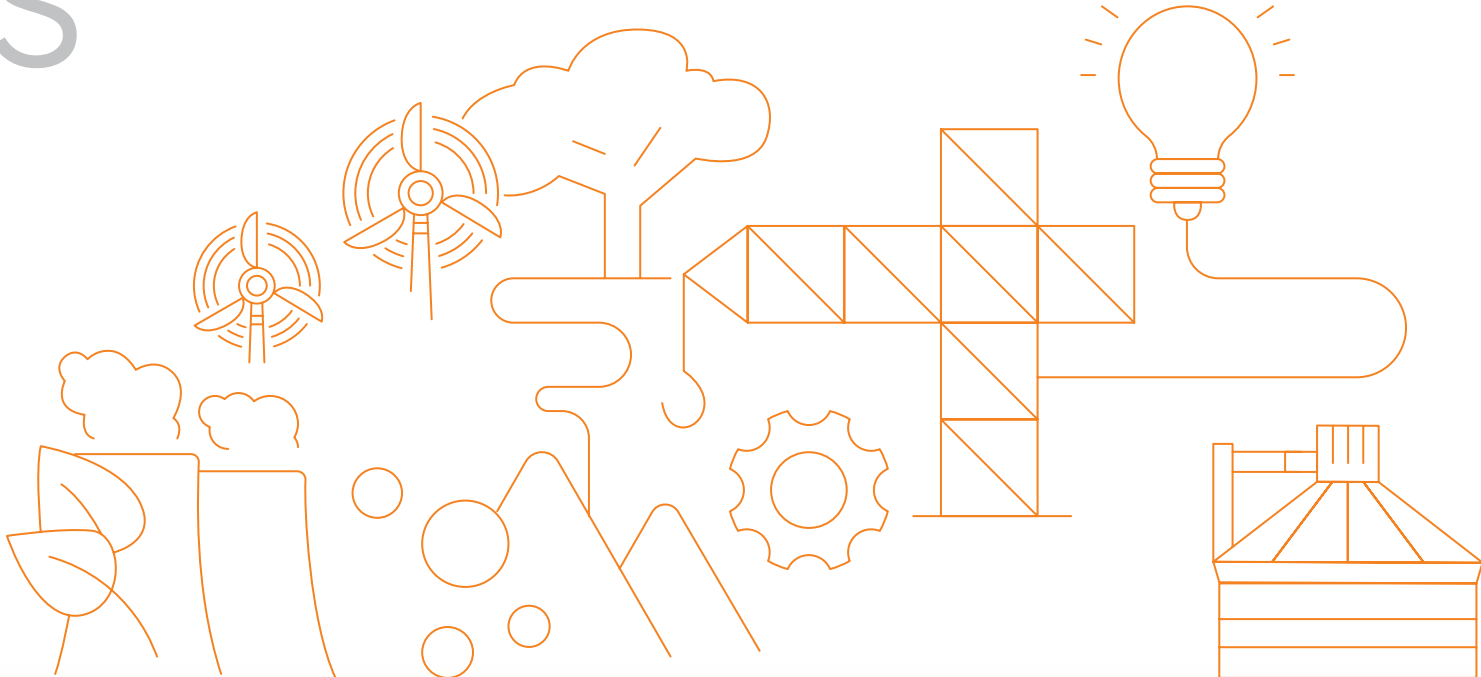
Consistency:Unless otherwise specified, this report employs the same disclosure and statistical methods used in previous years to ensure comparability of sustainability data over time—both with past and future reports. Any changes in the methodology for calculating indicators will be noted and explained within the report.

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A Letter to Stakeholders

As we embark on this new chapter, realizing the dreams of CR Bldg Materials Tech on this new journey would not be possible without the care and support of our stakeholders. We have compiled our actions and achievements in social responsibility and ESG throughout the year into the *CR Bldg Materials Tech 2024 Sustainability Report*. We sincerely invite you to explore this green dossier with us and join us on the path to a sustainable future.

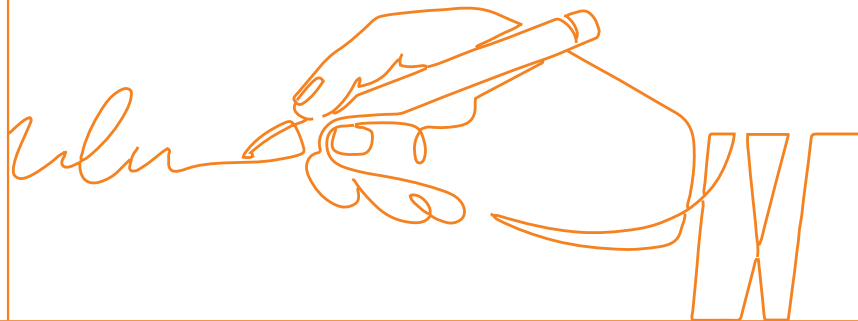
2024 marks the 75th anniversary of the founding of the People's Republic of China and is a pivotal year for achieving the goals set out in the "14th Five-Year Plan". It also signifies the inaugural year of CR Bldg Materials Tech embarking on a new journey. We actively implemented the "1246" model of China Resources, aligning closely with our management theme: Strengthening Foundations for Upgrading, Promoting Transformation via Technology Innovation. Confronting challenges head-on, we steadily advanced the implementation of the Company's "595" strategic initiatives, delivering a year of notable achievements amidst an industry downturn—achieving progress amidst difficulties, success through hard work, and advancement within stability.

With a steadfast focus on reform and innovation, CR Bldg Materials Tech has charted a clear development goal. Through targeted and impactful reforms, the Company has ushered in a new era of high-quality growth, building fresh momentum and competitive advantages. We have advanced our integrated industrial park strategy, reinforcing our leadership in regional markets. Accelerating production capacity layout and optimizing Hong Kong operations with a strategic focus on new materials. Anchored in "high-end, intelligent, and green" development, the Company has prioritized technological innovation as a core driver. In 2024, we secured 49 new patents and achieved seven breakthroughs, including the Tungsten Tailings Hierarchical Resource Utilization Technology, earning two first prizes for scientific progress from industry associations. These milestones have laid a strong foundation for fostering new quality productive forces. Aligned with the "new path of industrialization", the Company accelerated our push into smart manufacturing and explored AI applications. Notable initiatives included the Self-Developed AI Vision-Based Alternative Fuel Intelligent Control Project. We also expanded successful Lighthouse Factory practices and completed high-quality integration of "5G + Industrial Internet" solutions. These efforts have further propelled the creation of a digital and intelligent Lighthouse Network, driving transformation and upgrading across the Company.

By fostering mutual support and collaboration, CR Bldg Materials Tech is laying the groundwork for a brighter future. The Company shares our development achievements with society to cultivate a harmonious and thriving community. Internally, we steadfastly protect employees' legitimate rights and interests while continuously enriching the "13323" training system to promote employee growth. Prioritizing employee well-being, we organize various activities and provide aid to 35 employees and their families facing health challenges. Externally, we build robust, stable partnerships to create a sustainable supply chain that encourages industry synergy and shared value. True to our mission of serving the public, we give back through initiatives like the "Run for Excellence" virtual charity run, establishing a long-term aid mechanism to foster mutual care. Through our Runmei Countryside responsibility initiative, we have donated over RMB 2 million in charitable contributions, showcasing our commitment to social responsibility and spreading warmth and strength.

By exploring innovative pathways for pollution reduction and carbon mitigation, CR Bldg Materials Tech is solidifying the foundation for transformation. We integrate green and low-carbon principles throughout our production and operations, contributing to a beautiful China and harmony between humans and nature. Utilizing EHS management as a pivotal tool, the Company deepens environmental governance and pushes for comprehensive certification of environmental and energy management systems. By applying the "3C Carbon Neutrality Theory", we develop green factories and continuously advance energy-saving and carbon-reduction technological upgrades. Significant efforts are being made in researching and applying technologies such as photovoltaic power generation, alternative fuels and waste heat power generation, carbon capture and utilization platforms are constructed. Notably, the 100,000-ton carbon utilization R&D platform at Fengkai Cement successfully commenced operations, while the Practice Case on Green and Low-carbon Benchmarking Factory of Tianyang Industrial Park was featured in the *2023 Selected Excellent Practice Cases of Green and Low-carbon Development of Chinese Central SOEs*. Furthermore, the Company has achieved new milestones in green mine construction, with seven mines added to the provincial green mine registry. These actions exemplify CR Bldg Materials Tech's commitment to enhancing the "lucid waters and lush mountains" landscape through concrete measures.

Standing at the threshold of a new journey, we will focus on Deepening Reform and Embracing Renewal. By continuously advancing the Four Reshapings, we aim to create new momentum, strengthen core functions, enhance core competitiveness, and inspire new actions. We will demonstrate responsibility in fostering new quality productive forces and make meaningful contributions to promoting high-quality industry development. As time progresses, the strides of those who strive never cease. CR Bldg Materials Tech will unite in shared vision, channel our drive for progress, and build momentum for development. Together, we will contribute greater wisdom and strength towards a greener, smarter, and higher-quality future for the industry.



About CR Bldg Materials Tech



Company Overview

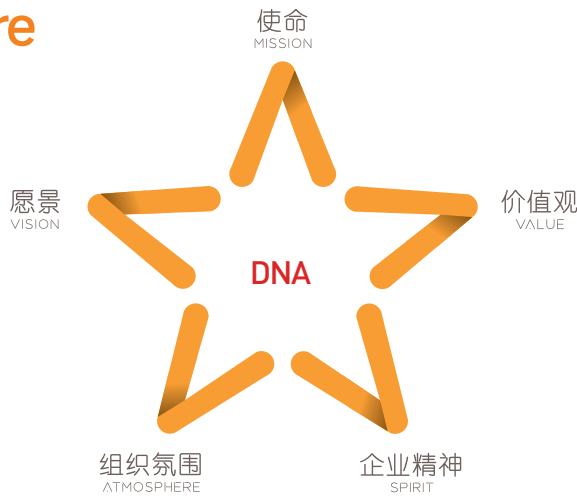
China Resources Building Materials Technology Holdings Limited ("CR Bldg Materials Tech") is a Hong Kong-listed company (Stock Code: 1313.HK) under the central state-owned enterprise China Resources Group, and it ranks fifth in the "2024 Comprehensive Strength Ranking of China Cement Listed Companies" by the China Cement Association.

CR Bldg Materials Tech is included in seven indicators: the Hang Seng Composite Index, Hang Seng Composite Industry Index (Properties & Construction), Hang Seng Composite MidCap Index, Hang Seng Composite LargeCap & MidCap Index, Hang Seng Large-Mid Cap (Investable) Index, Hang Seng HKEX Stock Connect, and Hang Seng Stock Connect Greater Bay Area Composite Index.

Strategic Goals

2024 is a pivotal year for accelerating the implementation of the "14th Five-Year Plan" strategy. The Company is expediting the upgrading of traditional industries while steadfastly pursuing high-quality development. We continue to strengthen and optimize our three core businesses—cement, aggregates, and concrete—while driving cost reductions across the entire value chain. By leveraging integrated synergies, we consistently enhance our core competitiveness and optimize resource allocation in an orderly manner, realizing improvements in corporate asset quality.

Corporate Culture



The "Fourteenth Five-Year" Corporate Culture System of CR Bldg Materials Tech

DNA

Dedicated to the Great Rejuvenation of the Chinese Nation
Determined to create a better life for the people
Duty-bound to achieve economic prosperity for the country



Mission

To provide high-quality products and services and systematic solutions to the public, promote green development, lead digital transformation, thereby building an everlasting business



Vision

To become a respected world-class building materials company



Value

Honest and trustworthy
Performance-driven
People-oriented
Win-win collaboration



Spirit

Dedication to serve the country
Pioneer with courage in innovation
Persistence in advancing
Strive continuously to be stronger

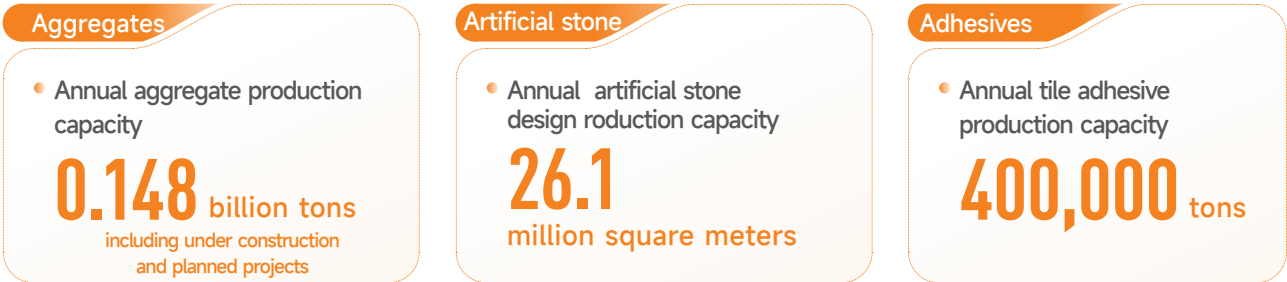
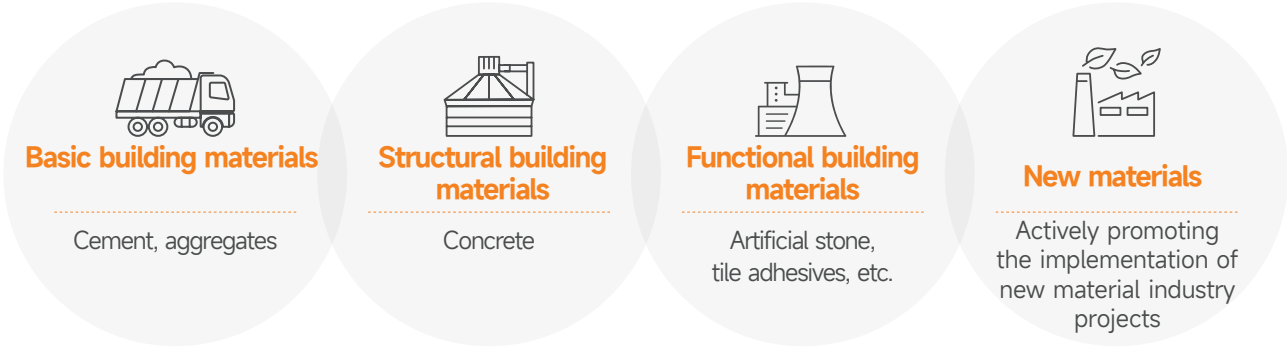


Atmosphere

Sincerity
Solidarity
Open-mindedness
Proactivity



Business Areas



Business Distribution

CR Bldg Materials Tech operates in limestone mining, as well as the production, sales, and distribution of cement, clinker, and concrete. Leveraging a well-established logistics network of waterways, railways, and highways, our products are primarily sold in Guangdong, Guangxi, Fujian, Hainan, Yunnan, Guizhou, Shanxi, and Hunan. The Group's products are mainly used in the construction of infrastructure projects such as railways, highways, subways, bridges, airports, ports, dams, hydropower stations, and nuclear power plants, as well as in the development of high-rise buildings and urban-rural and rural development initiatives.

The locations and capacities of production facilities are as follows:

Province/ Region/SAR	Cement		Clinker		Concrete	
	No. of production lines (piece)	Capacity (million tons)	No. of production lines (piece)	Capacity (million tons)	No. of mixing plants (piece)	Capacity (million cubic meters)
Guangdong	32	27.7	12	15.5	22	16.0
Guangxi	35	34.8	19	27.9	30	19.6
Fujian	14	10.1	6	7.0	1	0.6
Hainan	5	4.4	3	2.9	6	3.3
Yunnan	7	5.1	4	4.2	1	0.6
Guizhou	4	4.0	2	2.8	1	0.8
Shanxi	2	2.0	1	1.5	1	0.6
Hunan	2	2.1	2	1.5	0	0
Zhejiang	0	0	0	0	2	1.1
Hong Kong SAR	0	0	0	0	4	1.6
Total	101	90.2	49	63.3	68	44.2

Product Brands



Applications

Basic building materials and structural building materials (cement, aggregates, concrete, and precast concrete components)



- Runfeng Sub-brand
- Premium cement for high-end renovation



Applications

Functional building materials (artificial stone and tile adhesive)

Project Cases

South China Region (including Hong Kong SAR)

- Hong Kong-Zhuhai-Macao Bridge, Shenzhen-Zhongshan Link, Shenzhen Baoan International Airport, Shenzhen Yantian Port, MixC Shenzhen, China Resources Tower (Spring Bamboo), Guangzhou-Shenzhen Expressway, Guangzhou-Shenzhen Riverside Expressway, Canton Tower, Guangzhou International Finance Center (West Tower), Shiziyang Channel, Guangzhou Metro, Shenzhen Metro, FMETRO, Ganzhou-Shenzhen High-Speed Railway, Guangzhou-Shanwei High-Speed Railway, Shantou-Shanwei High-Speed Railway, Guangzhou-Huadu Intercity Railway, Guangzhou-Zhanjiang High-Speed Railway, Zhuhai-Zhaoqing High-Speed Railway, Guangdong Taipingling Nuclear Power Plant, Guangdong Lufeng Nuclear Power Plant, Zhongshan Science City, Nansha-Zhuhai (Zhongshan) Intercity Railway, Guangzhou Port Nansha Grain and General Cargo Terminal Silos, North Industrial Park of Zhaoqing High Technology Industrial Development Zone, Shenzhen Pingshan Yanzi Lake International Convention and Exhibition Center, DJI Sky City in Shenzhen, Ping An Hospital in Longhua District of Shenzhen, Pengcheng Laboratory in Shenzhen, Futian District Cultural Center in Shenzhen, The Chinese University of Hong Kong, Shenzhen, etc.;
- Hong Kong International Airport, Hong Kong International Finance Centre, Tsing Ma Bridge, Ting Kau Bridge, Hong Kong Palace Museum, etc.;
- Pinglu Canal, Cangrong Xunjiang Bridge, Qinzhou Longmen Bridge, Nanning MixC, Xijiang Shipping Hub in Guangxi, Qinzhou-Beihai Expressway, Bailongtan Hydropower Station, Nanning-Guangzhou High-Speed Railway, Guiyang-Nanning High-Speed Railway, Nanning-Chongzuo Railway, Datengxia Water Conservancy Project, Nanning Metro, Guilin Longmen Bridge, Hezhou-Bama Expressway, Cangwu-Zhaoping Expressway, Hengzhou-Qinzhou Expressway, etc.;
- Wenchang Spacecraft Launch Site, Hainan Island Ring Expressway, Hainan Changjiang Nuclear Power Plant, Hainan Wenchang-Lingao Expressway, etc.

East China Region

- Phase II of Fuzhou Changle International Airport, Xiamen Cross-Strait Financial Center, Zhangzhou-Yong'an Expressway, Yuzhou University Town in Xiamen, Xingguo-Quanzhou Railway, Zhangzhou Nuclear Power Plant in Fujian, Xiapu Nuclear Power Plant in Fujian, Fuzhou-Xiamen High-Speed Railway, Andaz Xiamen, etc.;
- Jiaxing Railway Station in Zhejiang, Zhejiang San'ao Nuclear Power Plant, Yuyue Life Medical Industrial Park in Danyang, Jiangsu, etc.

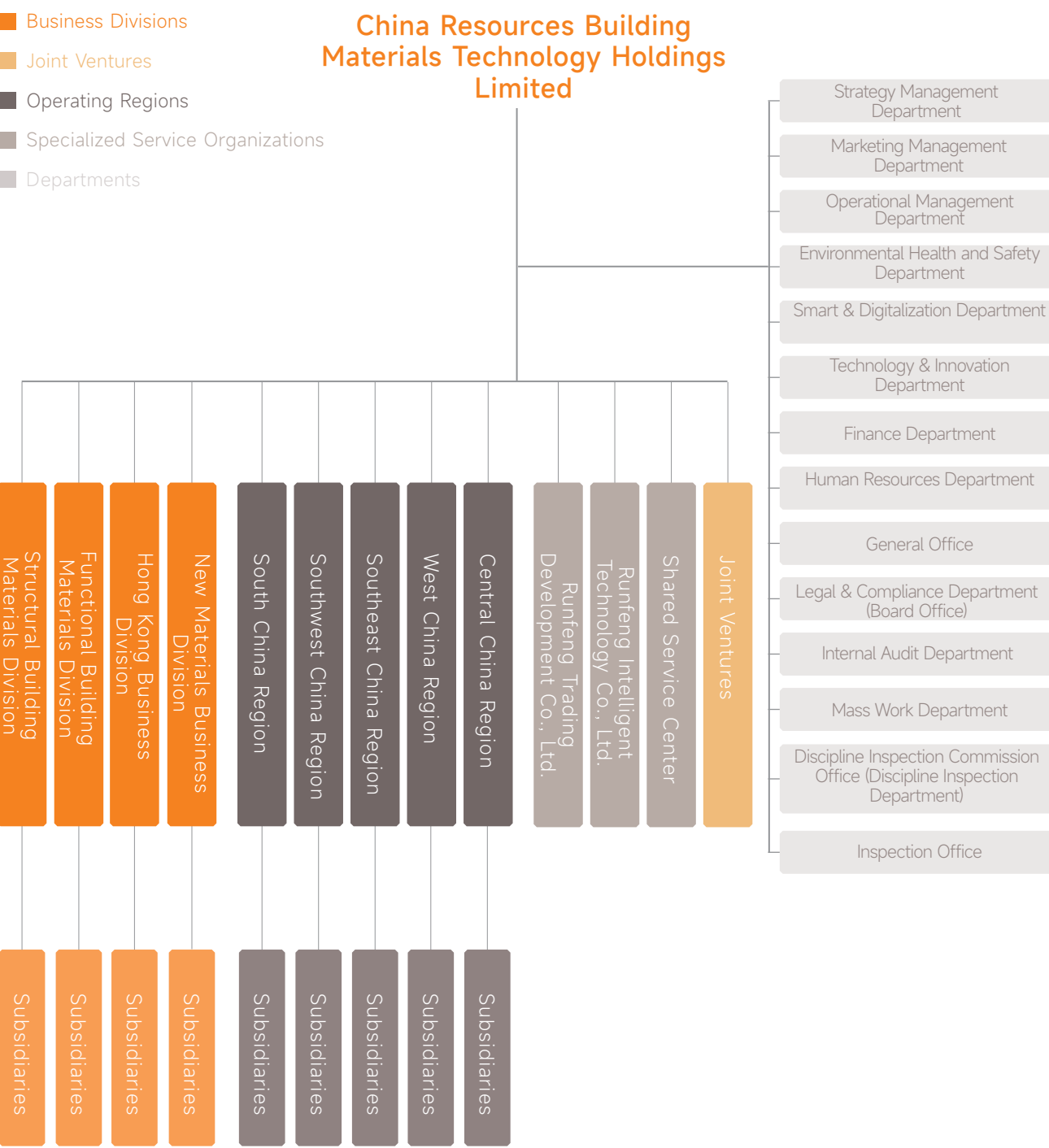
Southwest China Region

- Sichuan-Tibet Railway (Ya'an to Linzhi section and Xinduqiao-Jinsha River section), Rumei Hydropower Station in Tibet, Yebatan Hydropower Station, Tuoba Hydropower Station in Yunnan, Xulong Hydropower Station, Lawa Hydropower Station in Sichuan, etc.;
- China-Laos Railway from Kunming to Vientiane (Yuxi to Mohan section), Central Yunnan Water Diversion Project, Lijiang-Shangri-La Railway, Guangtong-Dali Railway, Lincang Airport, Shangri-La-Lijiang Expressway, Chuxiong-Dali Expressway, Nanjian-Jingdong Expressway, Heqing-Guanpo Expressway, Lincang-Qingshui River Railway, etc.;
- Jiayan Reservoir in Guizhou, Maotai Airport in Guizhou, Jiangjin-Xishui-Gulin Expressway, Renhuai-Zunyi Expressway, Guiyang-Jinsha-Gulin Expressway, etc.;
- Icon Yunduan Tower in Chengdu.

North China and Northwest China Regions

- Xi'an International Convention and Exhibition Center (Xi'an ICEC), Xi'an Jiaotong University · iHarbor;
- Qingdao Wanda International Hospital, Shanxi Taiyuan-Jiaozuo High-speed Railway, etc.;
- Nanjiang China Resources Hope Town, Party School of the CPC Central Committee (National Academy of Governance).

Organizational Structure



Milestones in 2024

Feb.

Special campaign for the Year of Enhancing Mindset, Competence, and Work Ethic

In February, we held a mobilization meeting to launch the special campaign for the Year of Enhancing Mindset, Competence, and Work Ethic. The initiative aims to further inspire employees and management to embrace challenges with determination, foster a spirit of continuous improvement, and create a strong culture of innovation and achievement.

Mar.

Runpin artificial stone made its debut in the Central Asian market

In March, our Runpin artificial stone officially entered the Central Asian market with its first export order in the region, achieving a milestone from zero presence to a successful entry.

Apr.

The Integrated Waste Disposal Project for Mine Waste Rock and Construction Debris receives sci-tech achievement certification, reaching advanced international standards overall

In April, the Integrated Utilization of Mine Waste Rock and Construction Debris for Producing Low-Carbon Cement and Concrete Technologies and Application Demonstration Project at CR Bldg Materials Tech's Changjiang Industrial Park received a Sci-tech Achievement Certification from the China Building Materials Federation. The Project was recognized as reaching advanced international standards overall, with its Key Technology for Producing Low-Carbon Cement and Concrete Using High-Aluminum, Low-Calcium Waste Rock achieving international leadership.

Apr.

The first sustainability-linked bond was successfully issued

In April, CR Bldg Materials Tech successfully issued the first tranche of 2024 medium-term notes (sustainability-linked), with a total issuance size of RMB 1 billion, a three-year term, and a coupon rate of 2.44%. This marked the first sustainability-linked bond within the China Resources Group and set a new historical low for the issuance rate of panda bonds by China's central SOEs with the same rating and term.

May.

Zhaoqing Runxin New Materials' Non-Coal Mine Intelligent Blasting Scene was selected for the National Mining Field Robot Typical Application Scene List

In May, the General Department of the National Mine Safety Administration and the General Office of the Ministry of Industry and Information Technology jointly announced the *Notice on Publishing the National Mining Field Robot Typical Application Scene List*. The Non-Coal Mine Intelligent Blasting scene, developed with the participation of Zhaoqing Runxin New Materials, was successfully included in this prestigious list.

Jun.

We ranked 13th again in the Top 100 Pioneering ESG Listed Companies in China list

In June, CR Bldg Materials Tech was once again ranked 13th in the Top 100 Pioneering ESG Listed Companies in China list for its strong performance in environmental, social, and governance (ESG) responsibilities, achieving a "five-star" ESG rating.

Jun.

In June and September, bases under CR Bldg Materials Tech won the titles of Advanced Grassroots Party Organization of China's Central SOEs and Advanced Organization Among China's Central SOEs.

In June, the Production Party Branch of China Resources Cement (Fengkai) Limited was awarded the title of Advanced Grassroots Party Organization of China's Central SOEs. In September, China Resources Cement (Tianyang) Limited under CR Bldg Materials Tech was named Advanced Organization Among China's Central SOEs.

Sept.

Jul.

The 3D printing prefabricated composite floor slab technology reached the international leading level

In July, the Development and Application Research of the 3D Printing Integrated Edge Mold Prefabricated Composite Floor Slab Technology Project by Guangzhou Technology R&D Co., Ltd. passed the sci-tech achievement evaluation by the Guangdong Construction and Decoration Design Association. The project was recognized as reaching an overall international leading level.

Aug.

Nanning Zhizhu Technology's pilot R&D platform for 500 tons of high-purity quartz sand production started construction

In August, CR Bldg Materials Tech officially commenced the construction of its pilot R&D platform for producing 500 tons of high-purity quartz sand annually at China Resources Zhizhu Technology (Nanning) Co., Ltd. This marks a significant milestone in the Company's transformation into the new materials sector, holding landmark importance for its strategic development.

Dec.

We won the Gold Award at the 2nd Guangdong-Hong Kong-Macao Greater Bay Area High-value Trademark Cultivation Competition with the Runfeng Cement trademark

In December, the awards ceremony for the 2nd Guangdong-Hong Kong-Macao Greater Bay Area High-value Trademark Cultivation Competition, co-hosted by the Guangdong Administration for Market Supervision (Guangdong Intellectual Property Administration), Dongguan Municipal People's Government, the Intellectual Property Department of the Government of the Hong Kong Special Administrative Region, and the Economic and Technological Development Bureau of the Macao Special Administrative Region, was held in Dongguan. CR Bldg Materials Tech's subsidiary, China Resources Cement Holdings (Hong Kong) Limited, won the Gold Award for trademark cultivation with its Runfeng Cement trademark.

Pursuing Ambitions, Forging Lasting Success Through Perseverance and Resilience

Requirements and expectations

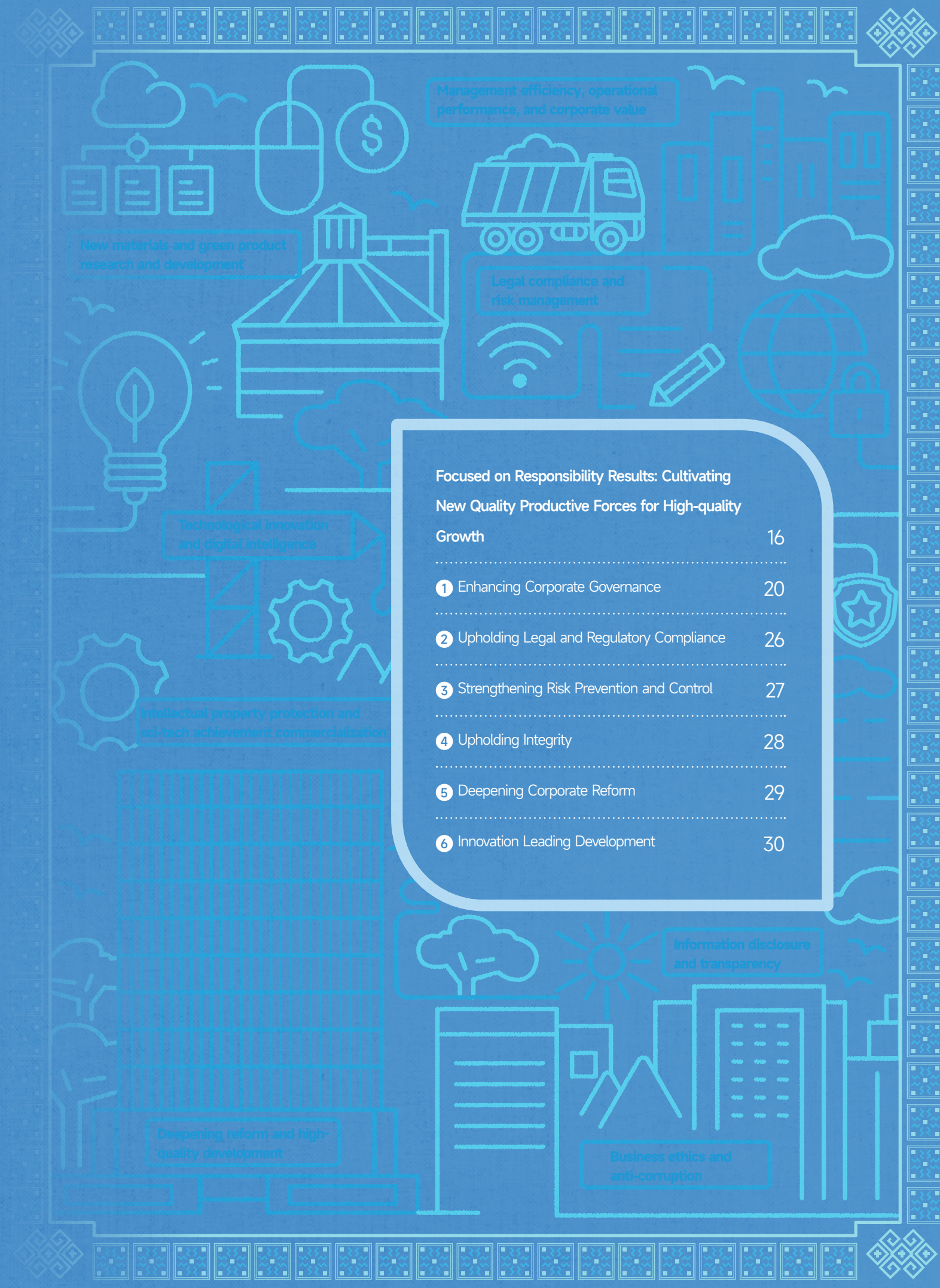
Building on the foundation of high-quality development, we are steadily enhancing operational efficiency and profitability, with a focus on creating top-tier listed companies characterized by strong financial performance, innovation capabilities, excellent governance systems, and high market recognition. We aim to create favorable conditions for institutional and retail investors to participate in corporate governance while safeguarding the legitimate rights and interests of minority shareholders. We are committed to adopt a scientific approach to market value management, strengthen compliance, refine internal controls, and adhere to standardized operations. Leveraging our industrial foundation and core business strategies, we are accelerating the development of strategic emerging and future industries through mergers and acquisitions, fostering new quality productive forces, and establishing ourselves as industry leaders.

—Several Opinions on Improving and Strengthening the Market Value Management of Listed Companies Controlled by Central Enterprises

Practice and response

In the inaugural year of its new journey, CR Bldg Materials Tech is centered around the annual management theme of Strengthening Foundations for Upgrading, Promoting Transformation via Technology Innovation. The Company continuously establishes and refines its governance structure, further enhancing systems and organizational development. We remain committed to building a foundation characterized by lawful compliance, robust mechanisms, effective risk control, and integrity. Additionally, we consistently strengthen communication with investors, effectively increasing investor and market recognition. By deepening corporate reforms, we boost production and operational efficiency and quality. Focusing on the integrated circuit and new energy sectors, we foster new quality productive forces tailored to local conditions and charting a new chapter on development.

SDGs issues involved in this chapter



Focused on Responsibility Results: Cultivating New Quality Productive Forces for High-quality Growth	
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Focused on Responsibility Results

Cultivating New Quality Productive Forces for High-quality Growth

As a key force driving the trends of the times, new quality productive forces are becoming the core engine for building a modern industrial system. With a forward-looking strategic vision and strong research capabilities, CR Bldg Materials Tech is continuously revolutionizing production processes, actively exploring new businesses, and vigorously developing innovative products. By pushing the boundaries of productivity and enhancing the quality and efficiency of development, the Company is laying a solid foundation for a more prosperous and sustainable future.

Breakthroughs in production, leading the industry's cutting-edge standards

CR Bldg Materials Tech accelerates technological innovation across the entire cement production process. Significant breakthroughs have been achieved in construction waste disposal, aggregate transportation, cement calcination, and carbon reduction grinding aids. Multiple achievements have reached internationally advanced or leading levels, steering the industry toward high quality, high efficiency, and low energy consumption.

Turning waste into treasure to usher in a new chapter for raw materials



The Company actively responds to Hainan's Zero-Waste City initiative by vigorously advancing the Changjiang County construction waste disposal project. We focus on innovating construction waste management models while steadfastly promoting technological advancements, supporting Hainan's vision of building an "ecologically superior, green, and low-carbon" free trade port.

The Changjiang Industrial Park construction waste disposal project adopts a model integrating "cement kilns + concrete mixing stations + construction waste treatment". This approach addresses environmental impacts caused by mine waste rock coverage and emissions, achieving "zero discharge" of mine waste rock. It provides an effective solution to the problem of construction waste surrounding Changjiang County, enabling one-stop waste disposal and 100% high-value utilization of recycled products. In February 2024, the Integrated Utilization of Mine Waste Rock and Construction Debris for Producing Low-Carbon Cement and Concrete Technologies and Application Demonstration project a Sci-tech Achievement Certification from the China Building Materials Federation. The project was recognized as reaching international advanced standards overall, with its Key Technology for Producing Low-Carbon Cement and Concrete Using High-Aluminum, Low-Calcium Waste Rock achieving international leadership.



Sci-tech Achievement Certification



Construction waste disposal site at Changjiang Industrial Park

Efficient transportation boosts production efficiency



an annual transport capacity of

30 million tons
from the mine to the port



Sci-tech Achievement Evaluation Report

Supported by "green and low-carbon, ecological protection, technological empowerment, and industrial alliances", the Company is driving the upgrading of the aggregate industry and vigorously advancing the Large Mine 30 Million Tons Annual Output Construction Granite Aggregate Project. Among its key components, the long-distance belt conveyor system, with an annual transport capacity of 30 million tons from the mine to the port, serves as the "lifeline" of the aggregate project, while also being the primary energy-consuming equipment.

CR Bldg Materials Tech, in collaboration with LIBO Heavy Industries and Shandong University of Science and Technology, has developed key technologies for an ultra-energy-efficient trailer-type belt conveyor system. This innovation overturns the traditional "idler-supported" belt conveyor structure by introducing a novel "double-beam support mechanism". They successfully developed a complete set of ultra-energy-efficient trailer-type belt conveyors, along with high-torque density, high-performance cooling structure permanent magnet motors, and intelligent control and monitoring systems tailored for this model. Compared to traditional belt conveyors, these innovations achieve energy savings of 35% to 50%, reducing carbon emissions by over 30%. On September 14, 2024, an expert panel composed of members from the Chinese Academy of Engineering, Yunnan University, and other institutions highly commended the sci-tech achievements and innovative breakthroughs of the Key Technologies and Equipment Development and Application of Ultra-Energy-Efficient Trailer-Type Belt Conveyor Systems Project, unanimously recognizing its overall technology as reaching international leading levels. The project won the First Prize for Scientific and Technological Progress of the 2024 China Nonferrous Metals Industry Association Science and Technology Awards.



Trailer-type belt conveyor

Refining clinker quality through technology



On the production front, the Company continues to increase investment in technological innovation and R&D, accelerating its green, low-carbon transformation and innovative development. In November 2024, two self-developed projects—Key Technology Research and Engineering Application of Multi-Stage + Coupled Reconstructed Heat Exchange for Cement Calcination and Development and Application of Carbon Reduction Grinding Aids for Cement—successfully passed the sci-tech achievement evaluation by the China Building Materials Federation.

The Key Technology Research and Engineering Application of Multi-Stage + Coupled Reconstructed Heat Exchange for Cement Calcination project introduces a pioneering "multi-stage + coupled reconstructed heat exchange technology", significantly improving gas-solid heat exchange efficiency within the preheating and pre-decomposition system. This breakthrough successfully addresses the technical bottleneck of achieving low-cost energy savings and carbon reduction within the constraints of existing production lines. The Evaluation Committee recognized the project's outcomes as reaching an overall international leading level.

The Development and Application of Carbon Reduction Grinding Aids for Cement project represents another major breakthrough by CR Bldg Materials Tech in the field of cement carbon reduction technology. The project successfully developed a carbon-reducing cement grinding aid that significantly enhances the effective utilization of clinker in cement, thus reducing the carbon emission intensity per ton of cement. The Evaluation Committee recognized the project's outcomes as reaching an overall international leading level.



Continuous business expansion promotes product innovation

The Company dares to break free from traditional constraints and actively explores new business avenues. We have successfully established the distinctive Runpin brand and are committed to innovating product development to meet the diverse and personalized demands of the market.

Breaking size limitations with an innovative ultra-large aggregate formula system



Runpin leverages an innovative production process to pioneer a formula system for ultra-large inorganic stone aggregates, overcoming previous size limitations. By precisely controlling the speed and force during the mixing process, it ensures uniform distribution of aggregates while maintaining their integrity to the greatest extent. Additionally, the ultra-large aggregate series features elegant aesthetics, superior compressive strength, excellent wear resistance, and A1-grade fire resistance. These premium characteristics expand the application scenarios and range of artificial stone products.



Filling industry gaps with ultra-fine inorganic powder panels



the Chengdu Taihang National Laboratory project covered an area of

16,000 square meters
with these panels

Runpin has innovatively broken through technical barriers by optimizing high-flow formula systems and redefining traditional mixing processes. This has led to the successful development and production of ultra-fine inorganic powder panels with particles sized 90 mesh and finer. These panels are now being used for outdoor wall decoration, addressing a gap in the industry. Moreover, Runpin inorganic powder panels are known for their fine texture, rich base colors, and wide range of applications. They have already been utilized in projects such as Changsha Gemdale Meilan Lake and the Chengdu Taihang National Laboratory. Notably, the Chengdu Taihang National Laboratory project covered an area of 16,000 square meters with these panels.



Developing functional products to create green and healthy living spaces



Runpin is actively expanding its range of functional building materials, introducing ultra-thin 10mm inorganic artificial stone products that match the hardness and toughness of conventional thicknesses, further broadening application scenarios for inorganic artificial stone. In response to international market policies and industry trends, the Company has advanced the research, production, and sales of low-silica organic quartz stone products, which have obtained EU CE certification, achieving initial sales of RMB 2.03 million. Additionally, Runpin's antibacterial quartz stone product received relevant antibacterial test reports in 2024, demonstrating an antibacterial rate exceeding 99.9% against E.coli, Staphylococcus aureus, and more. These products can be flexibly applied in schools, hospitals, apartments, and other settings, further promoting healthy and green living spaces.

low-silica organic quartz stone products achieving initial sales of RMB

2.03 million

demonstrating an antibacterial rate exceeding

99.9 %

against E.coli, Staphylococcus aureus, and more



In the future, we will continue to enhance our core competitiveness through technological innovation and upgrades, accelerating the Company's green, low-carbon transformation and innovative development. We aim to contribute our strength toward building a beautiful China where humanity and nature coexist harmoniously.

Enhancing Corporate Governance

Governance system development

Institutional development

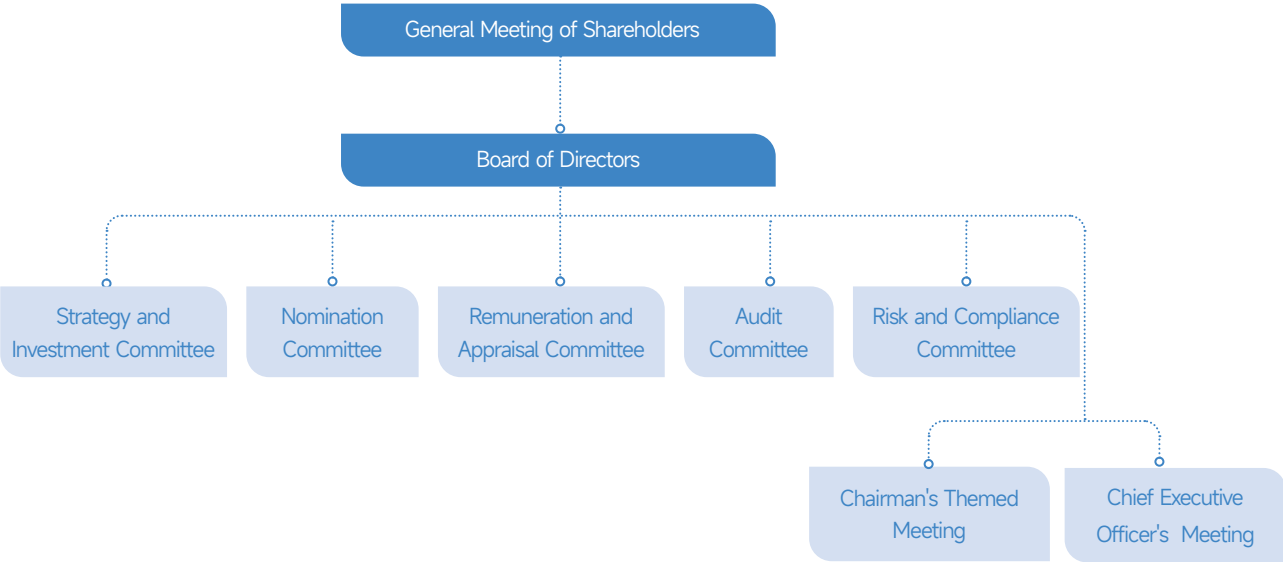
By the end of the year, the total number of active systems at the company level reached

351

CR Bldg Materials Tech continues to systematically advance the construction of its institutional system, improving the standardization and effectiveness of institutional management. The company has fully established and strengthened its Board of Directors, ensuring the full implementation of its authority and continuously enhancing corporate governance capabilities. In 2024, the company conducted a comprehensive review of its systems based on the principles of "establishment, revision, abolition, and interpretation". At the company level, a total of 124 regulations and systems were newly revised and issued, achieving the goal of synchronizing system development with business needs, timely optimization, and abolishing outdated practices. The *List of Decision-Making Matters under the Delegation of the Board of the Directors and the Corporate Governance Code* were revised to dynamically and scientifically update the responsibilities of the management personnel. By the end of the year, the total number of active systems at the company level reached 351.

Organizational structure

The Company strictly adheres to the provisions of Appendix C1 of the *Corporate Governance Code* under the *Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited* and its *Articles of Association*. The Company has established a scientific and efficient management structure, clearly defining the responsibilities and authorities of the Board of Directors and its subordinate bodies. This has created a management mechanism characterized by clear division of labor, mutual checks and balances, and coordinated operations, ensuring sound decision-making and driving the Company's efficient performance.



The General Meeting of Shareholders

is the Company's highest authority. In 2024, the Company held one annual general meeting through a combination of online and offline methods, allowing shareholders to vote and ask questions virtually. By enabling participation via in-person attendance, proxy voting, or online voting, as well as written or online inquiries to the Board of Directors and live-streaming of the event, the Company ensured all shareholders were equally and effectively able to exercise their rights to information, participation, speech, inquiry, and voting. A total of twelve resolutions were reviewed and approved at the meeting.



The Board of Directors

is the Company's primary decision-making body, accountable to the General Meeting of Shareholders. It oversees the Chairman's Themed Meeting, the Chief Executive Officer's Meeting, and five specialized committees: the Strategy and Investment Committee, Nomination Committee, Remuneration and Appraisal Committee, Audit Committee, and Risk and Compliance Committee. These committees regularly report to the Board and propose and discuss matters related to internal governance, major investment activities, risk prevention, and remuneration management. In 2024, acting in the interest of all shareholders, the Board convened seven meetings. All directors diligently fulfilled their duties, reviewing a total of seventy nine resolutions on matters such as the annual business plan, investment projects, financial reports, appointments and dismissals of directors and senior management, remuneration, and performance evaluations. Additionally, they reviewed three work reports and six training-related reports.



The Strategy and Investment Committee

is chaired by the Board Chairman and consists of one executive director, four non-executive directors, and one independent non-executive director. The Committee is responsible for studying the Company's strategic planning, investment projects, and corporate culture, and providing recommendations to the Board. In 2024, the Committee held four meetings and reviewed four agenda items.



The Nomination Committee

is chaired by the Board Chairman and includes one non-executive director and three independent non-executive directors. The Committee is responsible for studying the selection criteria and appointment or removal of directors and senior executives, conducting annual assessments on board diversity and the independence of independent non-executive directors, and providing recommendations to the Board. In 2024, the Committee convened six meetings and reviewed fifteen agenda items.



The Remuneration and Appraisal Committee

is chaired by an independent non-executive director and includes one non-executive director and three independent non-executive directors. The Committee provides recommendations to the Board on remuneration and assessment of directors and senior executives, total wage schemes, as well as matters related to the Company's share option plans and share award schemes. In 2024, the Committee held five meetings and reviewed five agenda items.



The Audit Committee

is a specialized Board committee focused on financial risk management, chaired by an independent non-executive director and comprising one non-executive director and three independent non-executive directors. The Committee advises the Board on matters such as financial statements and results announcements, the independence and remuneration of external auditors, and implements responsibilities for financial risk control and standardized decision-making on significant financial issues. In 2024, the Committee convened six meetings and reviewed twenty one agenda items.



The Risk and Compliance Committee

is a specialized Board committee responsible for legal, compliance, internal control, and risk management. It is chaired by an independent non-executive director and includes one non-executive director and three independent non-executive directors. The Committee oversees corporate governance, legal compliance, risk management (including ESG risks), and internal controls, providing recommendations to the Board. It also reviews the Company's sustainability and ESG-related strategic plans, policies, implementation rules, and reports, guiding ESG-related initiatives. In 2024, the Committee held five meetings and reviewed twelve agenda items.

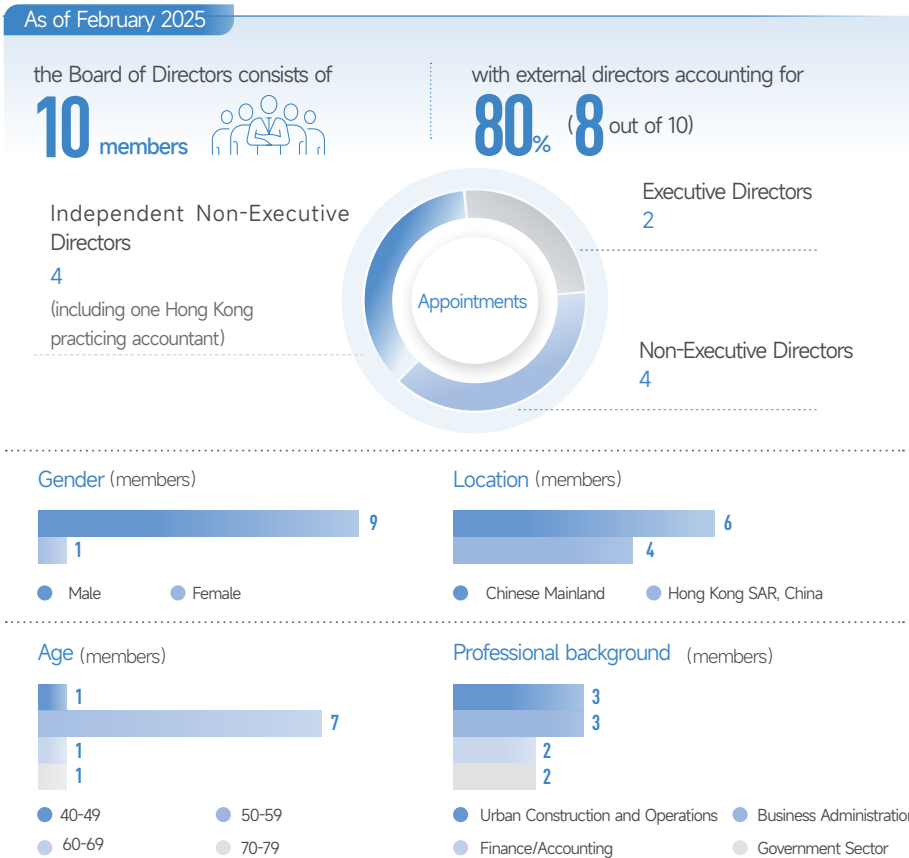
Building of the Board of Directors

the Company held 6 communication meetings with non-executive directors

The Company continues to implement a long-term mechanism for the standardized operation of the Board of Directors, organizing the preparation of the Board's annual work report, annual work plan, and research plans. We continuously optimize the structure and functioning of the Board and our specialized committees, producing a *Rectification Work Report of the Board of Directors* and regularly reviewing dedicated reports on Board-related activities from relevant departments to enhance governance standards. Additionally, we deepen the authorization mechanism involving regular reporting, ongoing monitoring, and dynamic adjustments, refining the *List of Decision-Making Matters under the Delegation of the Board of Directors* to further clarify the roles and responsibilities of the Board, senior management, and other governance bodies. In 2024, the Company held six communication meetings with non-executive directors and one with independent non-executive directors, fostering in-depth pre-meeting exchanges between directors and senior management on Board agenda items. These efforts ensured the scientific decision-making and effective implementation of Board resolutions.

Board member diversity

The Board of Directors actively implements the *Member Diversity Policy of the Board of Directors*. Board members with a mix of ages and lengths of service bring diverse skills and extensive experience tailored to the Company's business needs. The Board is also progressively increasing the proportion of female members to ensure scientifically sound and well-rounded decision-making.



Board independence

The Company strictly adheres to the eligibility criteria outlined in the *Listing Rules* and the Company's *Articles of Association* when appointing independent non-executive directors, ensuring full consideration of their independence and objectivity. The Nomination Committee annually evaluates the independence of all independent non-executive directors (with relevant members abstaining from assessing their own independence). To prevent any bias or impact on their objectivity and independence, the Company provides independent non-executive directors with a fixed annual fee without granting any performance-related equity remuneration such as stock options or share awards. In 2024, all independent non-executive directors diligently performed their duties, actively participating in major company decisions. They meticulously reviewed regular reports and financial statements, conducted on-site visits to grassroots business units, and provided thorough independent opinions and perspectives to the Company, the Board and its committees. Their efforts effectively safeguarded the interests of the Company and its shareholders, particularly minority shareholders, playing a crucial role in ensuring the Company's proper governance and operations.

Independent non-executive directors conduct business research in Hong Kong SAR

From March 13-14, 2024, independent non-executive directors NG Kam Wah Webster and Yan Bilan, along with former independent non-executive director Zeng Xuemin and four external directors, conducted a business research visit to the Hong Kong Business Division and its subordinate base units. They closely examined the operations of concrete production, building materials trading, quality testing, and advancements in research and innovation. The delegation also provided guidance on the future development and operational strategies for the Hong Kong business.



Remuneration of directors and senior executives

Management structure

The Board of the Company exercises its authority to assess the senior management in a scientific and effective manner. Under the Board, the Remuneration and Appraisal Committee is responsible for formulating remuneration policies and assessment standards for directors and senior executives. It conducts performance evaluations of senior executives and ensures that no relevant individuals or their associates are involved in determining their own remuneration. Additionally, in accordance with the *Rules of Procedure for Board Meetings*, directors must legally abstain from attending or voting on resolutions related to their own remuneration, and they are not counted toward the quorum required for such resolutions.

Remuneration plan and rationality

The Company has established a scientific and reasonable remuneration plan for its directors and senior executives, encouraging them to exercise their responsibilities effectively and promoting the Company's sustainable development. The executive directors and management team receive benefits in accordance with relevant requirements. Their remuneration structure maintains a fixed-to-variable ratio of 4:6, with 60% of the variable portion tied to the Company's performance achievements and individual performance evaluations.

Remuneration transparency

In accordance with the *Listing Rules* and the *Securities and Futures Ordinance* of Hong Kong SAR, the Company discloses in its annual and interim reports the securities holdings of the Company's major shareholders and directors, as well as those of connected entities. The Company regularly reminds major shareholders and directors to promptly and proactively report any changes in these holdings to the Hong Kong Stock Exchange and the Board. This ensures a high level of transparency regarding the Company's ownership structure and the interests held by Board members.

The Company's director remuneration policy is detailed in the annual reports. Under the authorization of the Annual General Meeting, and after considering the Company's performance, current market conditions, and recommendations from the Remuneration and Appraisal Committee, the Board determines the salaries, allowances, and discretionary bonuses of each executive director based on their duties and responsibilities within the Company. Specific remuneration details for each director are disclosed annually in the annual reports and shareholder circulars.

Safeguarding shareholders' rights

Regular convening of shareholders' meetings

The Company strictly adheres to the listing rules, the Company's *Articles of Association*, and other relevant regulations when convening and holding shareholders' meetings. These meetings ensure resolutions are made in a fair and transparent manner, safeguarding and upholding shareholders' rights. Shareholders may submit inquiries or suggestions to the Board through written communication, email, or by attending the shareholders' meetings. Minority shareholders can also exercise their voting rights by attending the meetings in person or appointing a proxy. They may submit inquiries or suggestions to the Board, nominate candidates for director positions, or call for extraordinary general meetings, provided these actions comply with the requirements outlined in the Company's *Articles of Association*.



CR Bldg Materials Tech holds Annual General Meeting (Shenzhen Venue)

Enhancing information disclosure

Information disclosure serves as a crucial window for investors and other stakeholders to obtain information about listed companies. The Company strictly adheres to the Listing Rules and its appendices, ensuring disclosures are truthful, compliant, accurate, timely, and reliable. Additionally, the Company has established multiple effective communication channels, disclosing significant events related to operations, governance, environmental protection, financial statements, and corporate reports through platforms such as the Hong Kong Stock Exchange website, the Company's official website, and social media. This approach aims to deepen investors' understanding of and confidence in the Company.

releasing a total of
64
documents on the Hong Kong
Stock Exchange platform

In 2024, the Company revised the *Corporate Governance Code* and formulated the *Inside Information Management Measures for Listed Companies*. These measures clarify the Company's requirements for managing insider information and define the responsibilities for disclosing inside information, general matters concerning the company, matters related to the Company's securities, and financial data. Throughout the year, the Company consistently fulfilled its obligations for information disclosure as a listed entity, releasing a total of 64 documents on the Hong Kong Stock Exchange platform without any instances of regulatory penalties due to issues with information disclosure.

Enhancing investor communication

The Company places a high priority on communicating with investors. During the reporting period, we utilized various platforms such as the official website, teleconferences, video conferences, roadshows, investor presentations, investor meetings, investor forums, and email inquiries to provide in-depth insights into our operations and development. These efforts facilitate communication between investors and shareholders, ensuring that overseas shareholders and investors are promptly and fully informed about the Company's business operations and development strategies. In September and November 2024, the Company organized visits for analysts from both domestic and foreign funds and brokerages to tour the cement and aggregate mines in Guigang City. These visits garnered positive feedback from investors regarding the aggregate business.



CR Bldg Materials Tech holds results briefing



CR Bldg Materials Tech wins the HKIRA 10th Investor Relations Awards

CR Bldg Materials Tech wins the Best IR Team at the 9th Zhitong Finance Listed Company Selection

Upholding Legal and Regulatory Compliance

Enhancing compliance management

The Company is committed to building a comprehensive, end-to-end compliance management system emphasizing preventive regulations, dynamic mid-process oversight, and post-process accountability. This effort spans four key areas: organizational structure, institutional systems, operational mechanisms, and cultural atmosphere. The Board has issued a compliance manual and compliance policy, providing resources to support compliance teams at all levels in implementing compliance management. In 2024, the Company revised and republished the *Compliance Management System of CR Bldg Materials Tech Holdings Limited* along with supporting specialized compliance systems, streamlining the original 13 specialized compliance systems into five. Additionally, it released the *Anti-Monopoly Compliance Guidelines of CR Bldg Materials Tech Holdings Limited*, detailing compliance risk identification points for specific types of monopolistic behaviors and providing practical application scenarios and investigation response guidance. These measures strengthen compliance management in the anti-monopoly field, ensuring standardized business operations and external transactions.

In 2024, using the GB/T35770-2022 compliance management system standard as a framework, we conducted certification work for our compliance management system. Focusing on five key compliance certification areas, we identified 117 compliance requirements and established 133 compliance review checkpoints, thus effectively integrating compliance risk controls into the Company's rules, standards, and business processes.

In 2024 we conducted certification work for our compliance management system. we identified **117** compliance requirements and established **133** compliance review checkpoints



Strengthening compliance organization

The Company has formulated the *Working Measures for the Comprehensive Supervision System of CR Bldg Materials Tech Holdings Limited* to promote collaboration among the three lines of defense in compliance management: business departments, functional departments, and oversight departments. We have restructured the leadership team and working group responsible for the rule of law in corporate governance, risk control, and compliance management, ensuring effective integration of compliance into business operations through joint meetings and thematic reviews. The General Counsel and Chief Compliance Officer are required to attend board meetings to participate in discussions or deliberations on legal and compliance-related issues and key decisions. A list of 36 major decision-making matters requiring the Chief Compliance Officer's involvement has been developed, with review processes covering areas such as corporate governance systems and structures, investment management, and procurement management.

Promoting a compliance culture

In 2024 we conducted training sessions with approximately **840** participants

We adhere to the key behavioral standards outlined in our code of business conduct, covering areas such as anti-monopoly, anti-unfair competition, anti-commercial bribery, environmental protection, and quality. Meanwhile, we actively secure compliance commitments from our employees. In 2024, we conducted training sessions on conflict-of-interest management, compliance management, warrant management, anti-monopoly compliance, and the duties of compliance officers, with approximately 840 participants. Additionally, collective pre-appointment training was provided for 16 compliance officers (deputy compliance officers). New mechanisms were introduced, including "audit result notifications and announcements", "warning education", and "promotion of audit cases on the audit platform", involving 22 organizations and 28 managers, with over 4,300 participants trained. These efforts significantly enhanced compliance awareness across all levels of the organization.

Anti-unfair competition

We comply with the provisions of the *Law Against Unfair Competition of the People's Republic of China* and the *Anti-Monopoly Law of the People's Republic of China*, while strictly adhering to the requirements of the code of business conduct. Moreover, we actively uphold the principle of fair trade by organizing training and learning activities on anti-monopoly and anti-unfair competition, enhancing the legal and compliance awareness of both the Company and our employees, and reinforcing the baseline of fair operations. Additionally, we actively protect our rights by strictly observing the regulations of the *Copyright Law of the People's Republic of China*, the *Patent Law of the People's Republic of China*, and the *Trademark Law of the People's Republic of China*. We place significant emphasis on intellectual property protection, implementing the *Intellectual Property Management System*, the *Patent Management System*, and the *Brand Rights Protection Guidelines*. Training on intellectual property compliance has been conducted to raise employee awareness of intellectual property compliance and strengthen the protection and management of intellectual property rights and ownership. In 2024, the Company was not involved in any litigation related to monopoly or unfair competition.

Strengthening Risk Prevention and Control

The Company places significant emphasis on risk management and internal control. In 2024, the Company revised and released the *Management Measures for Classification Monitoring and Event Reporting of Major Business Risks of CR Bldg Materials Tech Holdings Limited*, establishing a robust risk prevention mechanism and standardizing the classification monitoring and event reporting of major business risks, including climate-related risks.

- Through processes such as risk information collection, risk identification, risk inventory compilation, corporate-level risk assessment, review of assessment results, and the formulation of risk response measures, we evaluated our top ten risks for 2024 and 2025;
- By integrating the top ten risks identified for 2024, the Company mapped out value chains and key factors across various business areas, forming a risk monitoring indicator system. Important risk indicators were identified and thresholds were set. Quarterly data collection and reporting for the 2024 risk monitoring system, along with the preparation of risk monitoring reports, were completed;
- In 2024, all items outlined in the 2023 *Internal Control System Construction and Supervision Work Plan* were implemented. 97 of the 98 internal control deficiencies identified through the "2023 Internal Control Self-Assessment and Supervisory Evaluation" have been rectified, achieving a 99% rectification rate. By the end of 2024, 8 out of 10 issues highlighted during the State-owned Assets Supervision and Administration Commission's (SASAC) internal control effectiveness evaluation had been addressed. The remaining unresolved issues are still under rectification, with plans to increase the frequency of follow-ups in 2025 to ensure continuous progress.

In 2024 **97** of the 98 internal control deficiencies identified through have been rectified, achieving a **99%** rectification rate

Upholding Integrity

Strengthening the "comprehensive supervision" system

In 2024
Various levels of disciplinary
inspection institutions conducted
19
rounds of inspections and
supervision

We have further refined our meeting mechanisms, information sharing mechanisms, problem clue transfer mechanisms, and joint supervision mechanisms under the *Working Measures for the Comprehensive Supervision System of CR Bldg Materials Tech Holdings Limited*. These enhancements aim to facilitate the proactive identification of violations and disciplinary issues by various supervisory bodies. The Company has also established the *Employee Misconduct Handling Measures of CR Bldg Materials Tech Holdings Limited* to strengthen the supervision and management of employees, and to improve the punitive system for misconduct. Additionally, a conflict of interest management mechanism has been set up to regularly investigate external investments, shareholding, business ventures, and related party transactions involving key personnel. Suspected cases are tracked, and corrective actions are enforced to decisively curb any signs of commercial bribery.

In 2024, the Company maintained a strong deterrent against corruption, launching in-depth rectifications targeting issues such as "exploiting the Company for personal gain" and corruption in critical areas. Various levels of disciplinary inspection institutions conducted 19 rounds of inspections and supervision, developed specific plans and task lists for inspection rectification and supervision, reviewed rectification plans from 15 inspected entities, and followed up to ensure that identified problems were addressed promptly.

The Company has been conducting targeted integrity and warning education initiatives in a tiered and categorized manner to reinforce the ideological defense against corruption. We have provided integrity and discipline training for key groups, including procurement staff, sales staff, Future Stars new employees, and Reserve Cultivation Elite young leaders, enhancing their awareness of self-discipline and compliance with rules. In 2024, the Company organized two warning education conferences, delivered 297 sessions of integrity education involving 10,571 participants, and conducted 217 warning education sessions with 14,744 participants.

The Third Integrity Culture Month deepens commitment to integrity

In August 2024, various units of the Company launched a series of activities with the theme Strengthening and Cultivating Integrity Principle as part of the third "Integrity Culture Month." Through initiatives such as soliciting integrity-themed artworks, hosting knowledge quizzes, and conducting integrity seminars, we actively promoted self-discipline among employees and reinforced their ideological defenses against corruption. The event collected over 160 integrity-themed artworks, held 28 supplier integrity seminars, conducted 41 warning education sessions including visits to anti-corruption education bases and court hearings, organized 58 collective integrity discussions, and facilitated 89 integrity risk inspections.



Southeast China Region's Strengthening and Cultivating Integrity Principle Campaign



Integrity-themed Artworks from Changjiang Industrial Park

Integrity education

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Deepening Corporate Reform

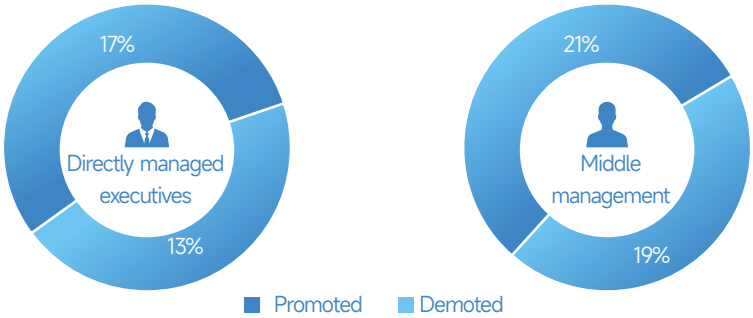
Business management

We have further strengthened our central oversight functions and continuously improved our business management mechanisms by establishing internal and external benchmarking systems. These systems emphasize identifying gaps, conducting in-depth analyses, and implementing improvements.



- The Company has deepened the "three-system" reform, focused on cultivating future leaders, optimizing leadership structures, enhancing workforce efficiency, and diversifying performance evaluation metrics. These measures have effectively maintained organizational vitality while steadily boosting the Company's core competitiveness.

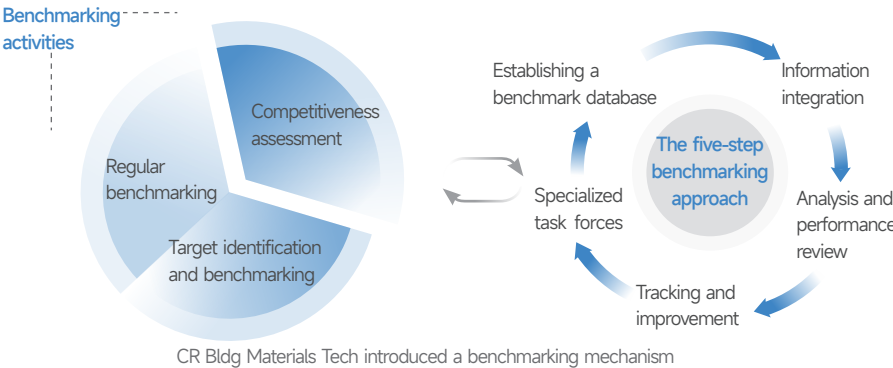
In 2024, the Company adjusted managerial positions and ranks in a fair, just, and transparent manner, promoting capable individuals and demoting those unsuited for their current roles to ensure alignment between their abilities and job requirements. The adjustments at each level are as follows:



- The Company has established a three-tier business management mechanism covering headquarters, regions/business divisions, and production bases, and issued the *Business Management System* for the first time. Key monitoring indicators were set along the business value chain to achieve closed-loop management from monitoring to implementation. The Company also implemented regular operational analysis meetings at all levels to review phase-based operational results and gaps, conduct strategy discussions, and drive performance improvements.



- The Company introduced a benchmarking management mechanism and issued the *Benchmarking Management System* for the first time. A benchmark database for production bases was created, identifying both internal and external benchmarking entities, which remain fixed over a certain period as a yardstick for operational improvement. An external benchmarking culture was fostered, with regular external benchmarking becoming a norm. Additionally, red-and-black board mechanisms were promoted at regions/business divisions and base levels to publicly highlight performance achievements and shortcomings.



Investment management

In 2024 completing the divestiture of 2 equity stakes and 4 property assets , with 11 projects achieving significant progress in their disposal

We adhere to the principle of "no research, no investment", revising our investment management system and guidelines to strengthen full-process investment management, conduct competitiveness assessments, and advance the divestment of non-core and non-advantageous businesses and focus on disposing of ineffective and low-efficiency assets.

◆ The Company issued the *Strategic Research Work Guidelines* to standardize research methodologies and clarify responsibility allocation. Studies such as *Carbon Trading in the Cement Industry and Cement Capacity and Production Limitation Policies* were conducted to support operational development.

◆ Project investment process management was enhanced with the release of guiding documents and the introduction of a pre-review stage. This ensures improved quality of new investments before they are made, rigorous risk control during investment, and deeper application of evaluation results post-investment.

◆ Using external benchmarking for quantitative scoring, production bases were categorized into five types based on their competitiveness assessment results and regional market attractiveness: bases maintaining advantages, striving for leadership, under observation, slated for exit/shutdown, and those requiring strict input control. This classification facilitates targeted strategies and optimized resource allocation. The Company intensified efforts to advance the divestment of non-core and non-advantageous businesses and focus on disposing of ineffective and low-efficiency assets, completing the divestiture of two equity stakes and four property assets in 2024, with 11 projects achieving significant progress in their disposal.

Innovation Leading Development

Innovation management system

In 2024 we invested RMB 174 million in R&D

CR Bldg Materials Tech is committed to gradually achieving safe, green, low-carbon, and intelligent development through digital transformation and upgrading. We have increased R&D investment to drive the transformation of our core businesses, accelerated the rollout of mature use cases from lighthouse factories, and successfully completed high-quality "5G + Industrial Internet" integration and innovation projects, setting a global benchmark for intelligent manufacturing in the building materials industry. To further stimulate innovation, we established a robust technology innovation management system by issuing three key policies: the *R&D Project Management Measures of CR Bldg Materials Tech Holdings Limited*, the *Error-Tolerant Correction Implementation Measures of CR Bldg Materials Tech Holdings Limited*, and the *R&D Project Incentive Plan of CR Bldg Materials Tech Holdings Limited*. These policies provide a solid institutional foundation for technological innovation. In 2024, we invested RMB 174 million in R&D, representing an R&D intensity of 0.7%.

We have been strengthening the development of our innovative talent pool by conducting various training programs and hosting a series of innovation-themed activities, effectively fostering a culture of technological innovation to support innovation-driven growth. In 2024, the Company hosted the China Resources Group Qihang Cup Science and Technology Innovation Competition (New Materials Track), organized the third Science and Technology Innovation Forum, the ninth RunFeng Cup Innovation Competition, and the inaugural Youth Science and Technology Forum & Science Popularization Day. Additionally, specialized training programs such as the Starlight Class for digital intelligence professionals, 5G-focused training, and innovation management empowerment workshops were conducted, laying a solid foundation for the continuous enhancement of the Company's technological innovation capabilities.

By the end of 2024

we had a total of 552 sci-tech professionals, including 3 China Resources Group-level leading sci-tech talents, 5 company-level leading sci-tech talents, 7 company-level key sci-tech experts, 153 full-time R&D personnel (including 7 Professors of Engineering, 14 PhDs, and 48 master's degree holders). Furthermore, we initiated the second phase of our joint university-enterprise non-full-time doctoral program, enrolling 4 participants.



Hu Yaolin Role Model Worker Innovation Studio was officially inaugurated on January 8, 2024

Further Reading



Hu Yaolin Role Model Worker Innovation Studio was awarded the title of Shenzhen Role Model Worker and Craftsman Talent Innovation Studio

The Hu Yaolin Role Model Worker Innovation Studio at CR Bldg Materials Tech, led by Hu Yaolin, Guangxi Zhuang Autonomous Region recipient of the May 1 Labor Medal and Guangxi Craftsman, was established with a team of 16 members, averaging 34 years of age. The studio focuses on researching and applying AI technologies in the building materials industry, including cement and aggregates. Its goal is to optimize production processes, enhance efficiency, and strengthen quality control through AI, driving the transformation of the building materials sector towards higher-end, intelligent, and eco-friendly development. This initiative aims to accelerate the growth of new quality productive forces through innovation.



The Ninth RunFeng Cup Innovation Competition



2024 Science and Technology Innovation Management Empowerment Training



Digital Intelligence Professional Talent Starlight Class and 5G Specialized Training

Innovation practices and progress

By the end of 2024, we had successfully established 3 provincial-level innovation platforms, 3 internal laboratories, 4 jointly built innovation platforms or consortia. Moreover, we had 32 ongoing innovation research projects, with a 100% completion rate for our R&D projects

We are accelerating the development of a new model for industry-academia-research collaboration, actively building high-level sci-tech innovation platforms. Our subsidiary, the Guangxi Technology Research and Development Center, has been accredited as a Guangxi Zhuang Autonomous Region Enterprise Technology Center. Additionally, we actively undertake key projects and topics issued by national and industry authorities. By the end of 2024, we had successfully established three provincial-level innovation platforms, three internal laboratories, and four jointly built innovation platforms or consortia. Moreover, we had 32 ongoing innovation research projects, with a 100% completion rate for our R&D projects.

CR Bldg Materials Tech actively undertakes key projects and topics issued by national and industry authorities

No.	Project name	Project type
1	Research and application demonstration of key technologies for precise harmless treatment and full resource utilization of electrolytic manganese slag	Guangxi Science and Technology Program
2	Key technologies for the treatment of major geological disasters in underground engineering in coastal karst areas	Guangxi Science and Technology Program
3	Key technologies and industrial demonstration for co-processing waste cathode carbon blocks in cement kilns to achieve carbon reduction	Guangxi Key R&D Program Project
4	Research and application of online condition monitoring and fault diagnosis for key equipment in cement production drive chains	Yunnan Province University-Industry Collaboration Key Industry Science and Technology Special Project
5	Construction of a "zero externally-purchased electricity" integrated demonstration factory with wind, solar, storage, and charging capabilities	Fourth Batch of Projects under the China Building Materials Federation's Challenge Initiative

Patent achievements

In 2024, the Company filed 91 new patent applications and was granted 49 patents, representing a 53.12% increase in granted patents compared to the previous year. Additionally, 47 new articles were submitted for publication. By the end of the year, the Company held a total of 372 valid patents, including 91 invention patents, 279 utility model patents, and two design patents, with invention patents accounting for 24.46% of the total.

Technological breakthroughs

In 2024, several of the Company's technologies, such as "multi-stage + coupled reconstruction heat exchange technology" and "modified molasses application technology", reached internationally leading levels. Notably, the Key Technologies and Equipment Development and Application of Ultra-Energy-Efficient Trailer-Type Belt Conveyor Systems Project achieved overall technological leadership at an international level and was awarded the First Prize for Scientific and Technological Progress of the China Nonferrous Metals Industry Association Science and Technology Awards.

Digital and intelligent development

In 2024 self-developed quality management systems for 5 sites smart logistics systems for 11 sites advanced control systems for 2 sites intelligent alternative fuel control for 3 sites energy management systems for 2 sites and safety production management systems for 15 sites

We focus on "smart factories", "intelligent marketing", "smart logistics", and "digital and intelligent governance" as our key priorities, aligning with the "new industrialization path" to comprehensively advance our digital transformation. In 2024, the Company continued to promote intelligent applications, including self-developed quality management systems for 5 sites, smart logistics systems for 11 sites, advanced control systems for 2 sites, intelligent alternative fuel control for 3 sites, energy management systems for 2 sites, and safety production management systems for 15 sites. Meanwhile, we implemented intelligent equipment operation and maintenance, enabling the physical operation of our headquarters' intelligent equipment diagnostic center. This reduced mechanical kiln shutdowns due to faults by 10% compared to 2023 through online monitoring. Additionally, we completed our "5G + Industrial Internet" integrated innovation application project, surpassing overall performance targets. Also, we established a "1+1+1+N" 5G + Industrial Internet application service system, creating industry-level "5G+" solutions, thus increasing the digital coverage rate of key processes to 90.53%.



序号	企业名称	5G应用	应用类型
1	广东移动	5G+工业互联网	智能制造
2	中国移动	5G+工业互联网	智能制造
3	中国联通	5G+工业互联网	智能制造
4	中国电信	5G+工业互联网	智能制造
5	中国铁塔	5G+工业互联网	智能制造
6	中国铁塔	5G+工业互联网	智能制造
7	中国铁塔	5G+工业互联网	智能制造
8	中国铁塔	5G+工业互联网	智能制造
9	中国铁塔	5G+工业互联网	智能制造
10	中国铁塔	5G+工业互联网	智能制造
11	中国铁塔	5G+工业互联网	智能制造
12	中国铁塔	5G+工业互联网	智能制造
13	中国铁塔	5G+工业互联网	智能制造
14	中国铁塔	5G+工业互联网	智能制造
15	中国铁塔	5G+工业互联网	智能制造
16	中国铁塔	5G+工业互联网	智能制造
17	中国铁塔	5G+工业互联网	智能制造
18	中国铁塔	5G+工业互联网	智能制造
19	中国铁塔	5G+工业互联网	智能制造
20	中国铁塔	5G+工业互联网	智能制造

The Fengkai Cement Full-Process Intelligent 5G Factory has been included in the 2024 5G Factory Directory List

序号	企业名称	5G应用	应用类型
1	广东移动	5G+工业互联网	智能制造
2	中国移动	5G+工业互联网	智能制造
3	中国联通	5G+工业互联网	智能制造
4	中国电信	5G+工业互联网	智能制造
5	中国铁塔	5G+工业互联网	智能制造
6	中国铁塔	5G+工业互联网	智能制造
7	中国铁塔	5G+工业互联网	智能制造
8	中国铁塔	5G+工业互联网	智能制造
9	中国铁塔	5G+工业互联网	智能制造
10	中国铁塔	5G+工业互联网	智能制造
11	中国铁塔	5G+工业互联网	智能制造
12	中国铁塔	5G+工业互联网	智能制造
13	中国铁塔	5G+工业互联网	智能制造
14	中国铁塔	5G+工业互联网	智能制造
15	中国铁塔	5G+工业互联网	智能制造
16	中国铁塔	5G+工业互联网	智能制造
17	中国铁塔	5G+工业互联网	智能制造
18	中国铁塔	5G+工业互联网	智能制造
19	中国铁塔	5G+工业互联网	智能制造
20	中国铁塔	5G+工业互联网	智能制造

The Non-Coal Mine Intelligent Blasting Scene, developed by Zhaoqing Runxin New Materials, has been successfully included in the national list of typical robotic application scenes in the mining sector



The Structural Building Materials Division's Western Guangdong Region has developed a 5G-based automated concrete quality monitoring system.



A 5G dedicated base station has been deployed at the Hezhou Industrial Park site

We continue to deepen our expertise in digital technology, actively exploring AI-related application scenarios. Also, we have initiated research on AI-based design technology for ready-mix concrete mix proportions and integrated AI vision inspection with advanced control systems. Additionally, we are also actively pursuing the "self-developed innovative project on AI vision-based intelligent control of alternative fuels", further expanding the application of AI in cement production and continuously iterating and optimizing AI algorithm models.

AI empowers new developments in alternative fuel applications

Through our self-developed innovative project on AI vision-based intelligent control of alternative fuels, we have adopted a model of "independent R&D + fully independent implementation + fully independent maintenance". By integrating IoT, advanced control (including smart voice and comprehensive model predictive control), information technology, and AI vision inspection, we have achieved the automation of the full chain of "scene, detection, data-alinment, and control," significantly enhancing production efficiency and product quality.

In 2024, comparative testing conducted at four sites—Tianyang Industrial Park, Hepu Cement, Nanning Cement, and Midu Cement—resulted in a 0.87% reduction in coal usage, with an estimated annual savings of approximately RMB 4.35 million. This lays a solid foundation for the rapid development, iteration, and autonomous promotion of alternative fuel applications.



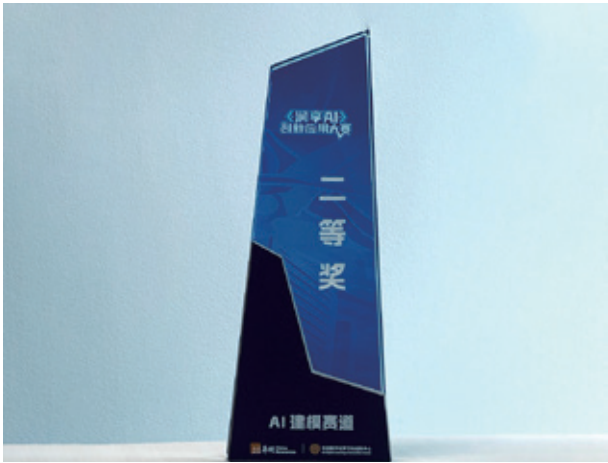
CR Bldg Materials Tech and CR Digital's project, 24/7 Smart Control Expert – Lean Control of Cement Production Using Multimodal AI, won the Digital Intelligence Landscape Award in the AI track of the 2024 Digital China Innovation Competition



CR Bldg Materials Tech won the third prize in the finals of the 4th Intelligent Manufacturing Innovation Competition – Manufacturing + AI Track



CR Bldg Materials Tech's project, Intelligent Guardian – AI-Driven Equipment Health Analysis Platform, won the first prize in the Qihang Cup Science and Technology Innovation Competition



CR Bldg Materials Tech's project, Advanced Control and AI Integration in Cement Production Processes, won the second prize in the AI Modeling Track of the Runxiang AI Innovation Application Competition

Commitment and Fulfillments



Commitments for 2024

- Promote the implementation and optimization of the comprehensive supervision system;
- Focus on key areas, strictly investigate issues such as "exploiting the Company for personal gain", "minor corruption", "petty corruption", and violations of the central eight-point decision on improving Party and government conduct, and create a strong deterrent against corruption;
- Deepen reform initiatives to support the achievement of the "14th Five-Year Plan" strategic goals;
- Enhance the efficiency of sci-tech investment and achieve breakthroughs in new materials business transformation.



Fulfillments in 2024

- Developed the *Working Measures for the Comprehensive Supervision System of CR Bldg Materials Tech Holdings Limited*, and enhanced the meeting mechanisms, information sharing mechanisms, problem clue transfer mechanisms, and joint supervision mechanisms;
- Conducted in-depth rectification of issues such as "exploiting the Company for personal gain" and corruption in key areas: carried out **19** inspections and supervision activities;
- Invested RMB **174** million in R&D, with an R&D intensity of **0.7%**, completed specialized planning for new materials business and clarified the direction for new materials development;
- Established **3** provincial-level innovation platforms, **3** internal laboratories, and **4** jointly built innovation platforms/consortia; undertook **32** ongoing innovation projects, achieving a **100%** completion rate for R&D projects;
- Filed **91** new patent applications and obtained **49** patents, representing a **53.12%** increase in granted patents compared to the previous year, and submitted **47** articles for publication;
- Accelerated the promotion of mature use cases from lighthouse factories and increased the digital coverage rate of key business processes to **90.53%**.



Commitments for 2025

- Driven by the "Year of Deepening Mindset, Competence, and Work Ethic", the Company will continue to deepen the Four Reshapings, promote systematic organizational transformation, optimize evaluation and incentive mechanisms, and comprehensively enhance organizational vitality and efficiency;
- The Company will implement inspection and audit rectification requirements, strengthen risk control, compliance, and disciplinary supervision, and further refine the comprehensive supervision system;
- The Company will solidly conduct a review and conclude the "14th Five-Year Plan" strategy, while initiating the planning for the "15th Five-Year Plan";
- The Company will focus on "high-end, intelligent, and green" development, accelerate the application and promotion of new technologies, drive the transformation and upgrading of traditional businesses, and develop new productivity tailored to local conditions;
- The Company will cultivate "sci-tech innovation" as the primary core function, with a strategic focus on three key areas: critical core technologies, key common technologies, and cutting-edge leading technologies for technology and product development.

Embracing Virtue for Lasting Impact, Nurturing Progress to Shape a Better Future

Requirements and expectations

Practice and response

SDGs issues involved in this chapter

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Hearts with Care 38

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Focused on Responsibility Brand:

Championing Rural Revitalization and Cultivating Hearts with Care

In 2017, the strategy of rural revitalization was first proposed, unveiling a magnificent and colorful picture of rural transformation. On this field of hope, CR Bldg Materials Tech actively explored ways to integrate rural development with sustainable practices. The Company diligently carried out targeted assistance and strongly supported the construction of Hope Town. Furthermore, we innovatively developed a rural revitalization brand, adding a vibrant and significant chapter to the grand narrative of rural revitalization.

2024

We contributed RMB **30,000** in unconditional donations (including goods) to the China Resources Hope Town initiative.

United assistance builds new hope for rural communities

The Company has actively responded to national calls by carrying out targeted assistance in Guangchang County and Haiyuan County, as well as providing counterpart support in Qingliu County. Deeply rooted in rural areas, the Company supports China Resource Group's Hope Town projects, bringing hope and vitality to these regions with profound commitment and steady progress.

In terms of industrial development, Qingliu Runfu New Materials Technology Co., Ltd., a joint venture established by CR Bldg Materials Tech in Qingliu County, sold 144,000 cubic meters of concrete in 2024, achieving a production value of RMB 46.1731 million and a net profit of RMB 2.3706 million, while contributing RMB 3.7377 million in taxes to the local government. The Company prioritizes local employment, hiring 50 employees from Qingliu County and providing them with job opportunities close to home. Additionally, we supported the development of the Gutian Hope Town by leveraging its training and reception capabilities. From January to November 2024, the town hosted 54 groups and 3,920 individuals for conferences, training, research, summer camps, and sightseeing activities. These efforts generated approximately RMB 800,000 in revenue for the town and increased collective village income by RMB 210,000 and villagers' income by RMB 640,000.

In serving the community, we purchased agricultural products worth RMB 690,300 from former nationally-designated poverty-stricken counties and revolutionary base areas, including Guangchang County, Haiyuan County, Menyuan Hui Autonomous County, Pingxiang County, and Qingliu County, helping these products reach broader markets. The Company also assisted 39 villagers from these regions in securing employment, bringing more smiles to the farmers' faces. Additionally, we provided essential supplies such as rice, flour, and milk to disaster-affected residents in Gutian Town and secured a RMB 1,000 consolation payment per person from the provincial medical insurance association for 6 low-income households in the town. Each of these efforts reflects the Company's dedication, fostering hope and growth across rural communities.

On the canvas of ecology, we actively implement sanitation requirements in Gutian Town and its villages, consistently maintaining cleanliness in public areas. The Company conducts regular inspections and improvements on environmental hygiene around houses and at garbage stations. During the flood season, we address landslide issues promptly and have completed the restoration of 2.48 mu of farmland plots. These efforts contribute to sketching beautiful landscapes and promoting ecological harmony.



Shixia Village, Linshe Town, Qingliu County



Dongkeng Village, Yangxi Township, Guangchang County

Brand-oriented leadership creates new value for revitalization

In 2024, we took more confident strides by leveraging our core business to launch the Runmei Countryside brand—a beacon of warmth and hope. This responsibility brand aims to harness the collective strength of our subordinate units to focus on improving rural infrastructure, enhancing living environments, and promoting economic and cultural development in rural areas. Through concrete actions, the Company shoulders the responsibility and mission of fully advancing the rural revitalization strategy. We effectively convey social care, enhance public welfare, and contribute to the construction of beautiful countryside.

Guided by our responsibility brand, we demonstrate our deep commitment to rural revitalization through concrete actions. In February, Heqing Cement donated 50 tons of Runfeng bagged cement to support the construction of an activity center for the elderly in Beigangong Village, under the Dadeng Village Committee in Xintun Town, Heqing County. In June, another donation of 236 tons of P·O42.5-grade Runfeng bagged cement was made to aid the later-stage road paving project in Daying Village, Songgui Town, paving the way for solid rural development. Meanwhile, Midu Cement contributed 150 tons of Runfeng cement specifically for the Love for Midu, A Green and Beautiful Hometown initiative in Micheng Town, supporting the transformation of the Pixiong River in Midu County.

This cement not only provides robust material support for rural construction but also symbolizes our steadfast commitment and heartfelt dedication to rural revitalization. The power embodied by the Runmei Countryside responsibility brand drives us forward, enabling us to contribute even more significantly to rural development. It allows the brand's light to shine brightly across the vast rural landscape, illuminating a path toward a brighter future!



The first responsibility brand Runmei Countryside

In June 2024 another donation of

236 tons

of P·O42.5-grade Runfeng bagged cement was made to aid the later-stage road paving project in Daying Village



Heqing Cement supports rural revitalization with a donation of 50 tons of cement to Dadeng Village Committee

As an active participant and promoter of rural revitalization, CR Bldg Materials Tech will continue to forge ahead with determination. The Company aims to promote the sustainable development of rural industries, enhance the quality of life for rural residents, and protect the rural ecological environment. By working hand in hand with all sectors of society, we strive to paint a magnificent picture of rural revitalization, bringing new vitality and prosperity to every piece of countryside.

Pursuit of Craftsmanship in Quality

Building high-quality products

Strengthening quality management

We have transformed our quality control model by establishing an information-based three-level warning mechanism, achieving refined and intelligent quality management. Also, we have strengthened source control by rigorously inspecting blended materials used in cement production and surveying blended material resources around its facilities. Additionally, we have enhanced testing capabilities by fully equipping laboratories with instruments compliant with the new national cement standards and conducting training on testing techniques and instrument calibration. Continuous quality improvement initiatives have been implemented, including quarterly inspections of cement and concrete quality, stricter raw material acceptance, and enhanced product quality control across all production stages. Performance comparisons between the Company's cement and competing products are conducted, with feedback and evaluation results used to improve competitiveness. In 2024, all cement production bases and artificial stone production bases under the Company successfully obtained ISO 9001:2015 Quality Management Systems certification.

Base-level warning

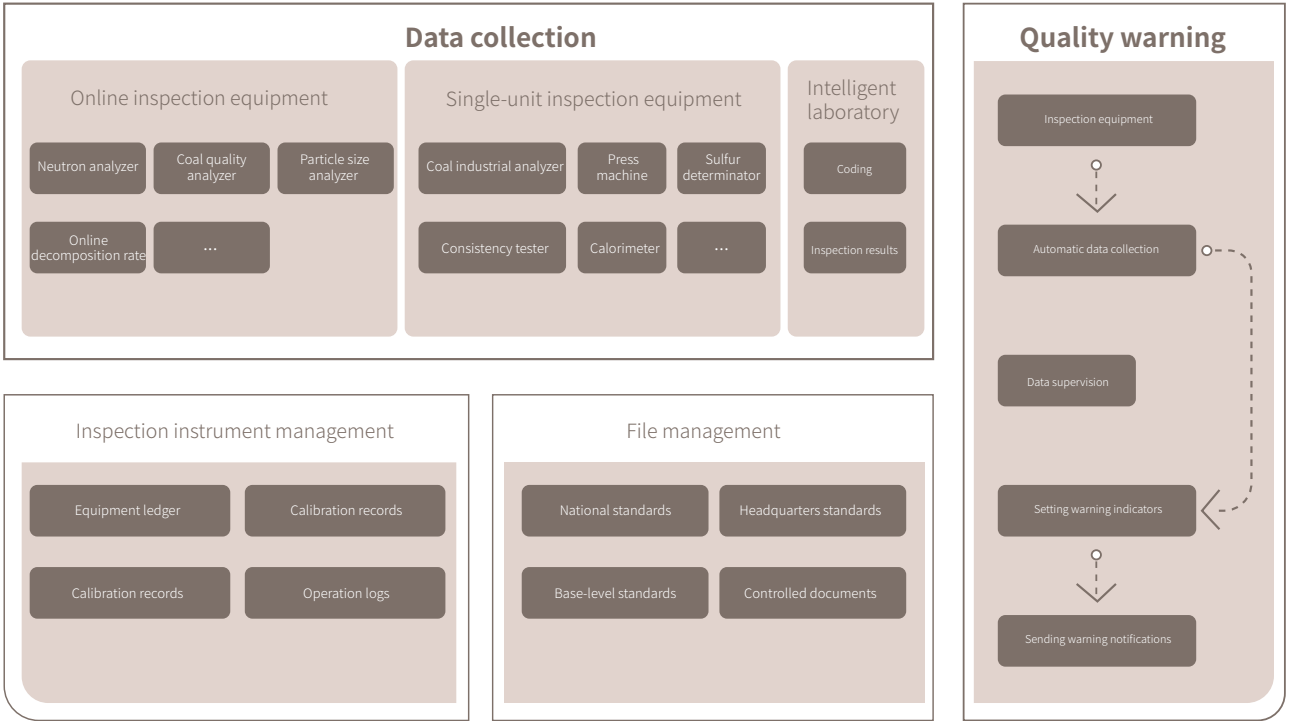
Customized warnings allow the quality department at each base to independently establish control parameters and set indicators according to product competitiveness and quality risk prevention requirements. Relevant warning information is sent to designated roles

Regional warning

Warnings are triggered based on the Company standards. When deviations from these standards occur, relevant personnel in regional operations receive corresponding warning notifications

Red-line warning

Warnings are based on national standards. If any non-compliance with national standards occurs, relevant personnel in regional operations management and the Company's quality management will receive immediate alerts



CR Bldg Materials Tech's Information-Based Quality Warning Mechanism

Product quality inspection process:

Quality planning	- The Company establishes internal control indicators for products based on national standards and market demands. - The Company sets reasonable control parameters for raw materials and ensures batch-by-batch inspection upon arrival. - The Company conducts a comprehensive survey of raw material quality at production bases and creates detailed resource archives.
Quality control	- The Quality Management Department provides 24/7 supervision and testing of clinker and cement production processes. - The Quality Management Department implements rigorous checks at every stage of production and enforces a quality assessment mechanism.
Quality assurance	- The Company collaborates with the National Cement Quality Supervision and Inspection Center to conduct comparative verification of product quality. - The Company organizes two comprehensive quality-focused spot checks annually, covering everything from raw materials to finished products, with a focus on identifying and addressing harmful substances such as chloride ions, chromium-6, and radioactive materials.
Quality improvement	- The Company conducts extensive market research to provide front-end support for production. - The Company continuously improves product quality based on customer feedback. - The Company drives product innovation through research and development at the Technology R&D Center.



Zhaoqing Runsheng receives Product Quality Certification from the Hong Kong Quality Assurance Agency



Dongguan Cement was awarded the 2024 Guangdong Province Cement Industry Excellence in Testing Capability Medal

Enhancing product performance



[Scan the QR code for more information]

CR Bldg Materials Tech's "Specialty Cement" with advanced sci-tech innovation

We have accelerated the development and application of Runfeng High-Performance Road Silicate Cement, assisting the Fujian Provincial Highway Center in formulating the *Technical Guide for Wear-Resistant Low Shrinkage Pavement Cement*. This initiative has significantly improved the performance and service life of cement concrete pavements on highways across Fujian Province. Meanwhile, the Runfeng medium and low heat cement continue to supply key mainstream hydropower projects in the Sichuan-Tibet region, thanks to their reliable quality. Additionally, projects such as "Key Technologies for Producing High-Toughness, High-Stain-Resistant Inorganic Artificial Stone" and "Key Technologies and Applications for High-Quality Green Inorganic Artificial Stone" have steadily advanced the performance of artificial stone products.



The interim research findings of the *Technical Standards for Wear-Resistant, Low-Shrinkage Road Cement for Highway Pavements in Fujian Province*, developed with the assistance of CR Bldg Materials Tech, were successfully approved at the Review and Promotion Conference for Wear-Resistant, Low-Shrinkage Pavement Cement Technology



The "Key Technologies for Producing High-Toughness, High-Stain-Resistant Inorganic Artificial Stone" developed by Dongguan Global Classic New Materials Co., Ltd. has won the Special Prize of the Scientific and Technological Progress Award of the Guangdong Building Materials Association.

Expanding the product portfolio

We continue to advance the research and application of specialty cement products, including nuclear power cement, prestressed cement, road cement, medium and low heat cement, low-alkali cement, railway-standard cement, slow-setting cement, and rapid-setting cement, as well as corresponding specialty concrete products. These efforts aim to meet the diverse needs of regional mega-projects and various types of customers and engineering projects. Additionally, we have developed a diversified product matrix encompassing artificial stone, tile adhesive, boardwalk panels, soundproof coatings, and more. We have also integrated systems for building insulation, coating, wall and floor solutions, foundation repair, and tiling. This comprehensive approach provides customers with a wide range of products and integrated system solutions.



Runpin 1+N+T comprehensive ecosystem for home decoration and building materials across all scenarios

Strengthening brand building

We consistently pursue excellence in quality and brand value, undertaking comprehensive and multi-layered efforts to strengthen our brand foundation. Meanwhile, we deepen the leading role of our two major product brands, Runfeng and Runpin. In 2024, we hosted a Brand Anniversary and Partner Conference—"Symbiosis · Progress · Win-Win". This event aimed to enhance collaboration across cement, aggregates, concrete, artificial stone, tile adhesive, and other business areas, working hand-in-hand with partners to jointly draw a blueprint for brand growth.



CR Bldg Materials Tech's 2024 Brand Anniversary and Partner Conference "Symbiosis · Progress · Win-Win"

Safeguarding customer rights and interests

Fair trade

We uphold the principles of equality, voluntariness, fair exchange, impartiality, and good faith throughout our cooperation processes. Through more than a dozen regulations, we standardize various aspects of our sales operations.

Meanwhile, we strictly enforce and continuously refine pricing policies to ensure alignment between price and product quality.

Additionally, we provide regular training for sales teams at all levels on anti-monopoly laws, market supervision requirements, sales systems, management standards, and key sales practices. This approach eliminates egregious incidents such as coercive selling practices and fosters partnerships based on equality, transparency, and mutual respect.

Information security

We protect customer information in accordance with relevant management requirements, such as the *Confidentiality Management Regulations of China Resources Building Materials Technology Holdings Limited* and *Commercial Secrets Management Measures of China Resources Building Materials Technology Holdings Limited*. Dedicated personnel are responsible for collecting, archiving, and updating information, with access and export permissions strictly controlled. We strengthen our information systems' layered defense capabilities to ensure the security of customer data. In 2024, no incidents of network information security breaches or violations of customer privacy rights occurred.

Responsible marketing

We design product brochures and promotional materials in compliance with the requirements of the *Advertising Law of the People's Republic of China*, ensuring the authenticity and reliability of product claims. Moreover, we adhere to objective, fair, and truthful marketing practices, maintaining transparency throughout the process while avoiding false advertising, excessive marketing, or concealing risks. Product packaging includes relevant instructions and reminders, and guidance is provided to end customers through brochures, flyers, training sessions, and on-site support. Besides, price information is openly disclosed, creating a transparent consumption environment for consumers.



In 2024, we released a brand-new product brochure, providing customers with a comprehensive, objective, and systematic introduction to the Company's business layout and industrial scale. The brochure was promoted through various online and offline channels

Cracking down on counterfeits

We employ a traceable quality supervision system, assigning a unique identification code to every batch of cement products leaving the factory. This provides technical support for quality control and combating counterfeit goods. In collaboration with CR Intellectual Property Management Company, we continue to advance the registration and protection of trademarks such as Runfeng, Wangpaigongjiang, and Runpin. We actively monitor and track counterfeit and infringing activities involving Runfeng in the market, firmly safeguarding our legally owned products and trademarks. In 2024, no counterfeit-related cases or incidents requiring administrative or judicial investigation occurred.



Hongshui River Industrial Park assisted the Nanning Municipal Market Supervision Administration in handling 13 tons of counterfeit and substandard goods



We won the Gold Award at the 2nd Guangdong-Hong Kong-Macao Greater Bay Area High-value Trademark Cultivation Competition with the Runfeng Cement trademark

Product recall

We continuously enhance our quality incident handling mechanism by establishing standards for managing quality accidents and optimizing solutions for dealing with non-conforming products, including compensation criteria, recall procedures, and processing workflows. If non-conforming products are identified or confirmed after shipment, or if serious quality issues arise during product use, we immediately notify relevant customers to stop using or isolate the batch in question. We then organize the recall of unused products from that batch, assess and compensate for customer losses, and conduct a thorough investigation into the quality incident. Rectification measures and accountability are determined, and the effectiveness of the rectification is verified. In 2024, we did not experience any product recalls related to safety, health, or quality concerns for sold or delivered products.

Enhancing customer service

Service management

In 2024 we collected **5,235** valid questionnaires through our customer satisfaction survey, achieving a satisfaction rate of **98.17%** marking the second consecutive year with satisfaction levels exceeding **98%**

The Company consistently implements the requirements of the *Customer Service Management Measures of China Resources Building Materials Technology Holdings Limited*, establishing a customer service system oriented toward meeting customer needs. We have developed comprehensive and distinctive regional customer service policies, classifying customers based on their profiles and formulating tailored maintenance strategies for different types of customers. Production bases, distributors, and regional sales teams collaborate to conduct regular customer visits, gathering feedback and suggestions to continuously improve the customer demand response mechanism and enhance response efficiency. In 2024, we collected 5,235 valid questionnaires through our customer satisfaction survey, achieving a satisfaction rate of 98.17%, marking the second consecutive year with satisfaction levels exceeding 98%.



At the 2024 Outstanding Partner Recognition Ceremony of China State Construction Engineering Hong Kong Limited, we were honored with the Long-Term Partnership Award from China Construction Hong Kong

Customer training

We actively educate customers on product performance and proper usage guidelines, and regularly conduct training sessions and activities for key user groups, including distributors, engineering customers, decoration companies, and construction teams. These initiatives focus on explaining product features, operational guidelines, and safety practices during construction, enabling customers to better understand product characteristics and ensure proper usage.

Value-added services

We continuously provide diversified value-added services tailored to the personalized needs of projects or customers. Meanwhile, we design specific business cooperation terms based on customer requirements, optimize logistics and delivery services, and leverage digital and intelligent systems to offer support in transactions, contracts, settlements, logistics, and financial services. Additionally, we provide multi-product combination solutions, including basic, structural, and functional building materials, to meet project-specific demands. These diverse value-added services attract deeper collaboration from a broader customer base.



Purchasing process

- Product selection** Choose one or more products you are satisfied with from the online store
- Order placement** Submit your order > Assign a vehicle for delivery
- Pickup** Use the pickup QR code provided on the platform to collect your order at the factory
- Dashboard** Track logistics trajectory View daily, monthly, or yearly pickup volumes Check account balance

CR Bldg Materials Tech E-commerce Platform

Handling complaints

We have established clear systems and guidelines for the responsible departments, roles, and authorities involved in complaint handling. These include processes for receiving, reporting, resolving, and following up on complaints, as well as conducting customer satisfaction surveys to drive continuous improvement. Additionally, we collaborate with regional distributors to create customer service groups, providing premium after-sales support through a many-to-one approach. In 2024, we received a total of 31 complaints related to products and services, with a 100% resolution rate.

In 2024 we received a total of **31** complaints related to products and services, with a **100%** resolution rate.

Key complaint handling processes:

- 1 Upon receiving a customer complaint, the initial content is verified and promptly reported to the regional marketing department. A dedicated person from their customer service team is assigned to follow up, handling the case while conducting data collection, analysis, and reporting.
- 2 The regional customer service team initially assesses the nature of the complaint. For significant complaints, they immediately contact the customer and escalate the issue through the proper channels. For general complaints, the regional customer service, distributors, regional sales, and base technical quality departments collaborate to handle the matter according to established procedures.
- 3 After receiving a complaint, the regional customer service and regional sales teams swiftly visit the site to investigate, confirming the authenticity and accuracy of the complaint before gathering relevant information. If the issue is preliminarily identified as a quality problem, inventory is locked down, and related records are verified. Samples from the complained batch, as well as from the same and adjacent batches in stock, are inspected. Following verification, feedback on the situation, cause, and proposed solution is provided to the customer. Written explanations or further actions are taken as necessary to safeguard customer rights.



Comprehensive investigation and diagnosis + precise policy implementation to address customer complaints

In March 2024, the Fujian subordinate base of the Company was complained by customers twice consecutively for the low shipping efficiency of P·O42.5 bulk cement, which led to long queues of numerous bulk cement trucks waiting for more than five hours to be loaded. Both customers and drivers expressed strong dissatisfaction. The Storage and Transportation Department of the base quickly investigated and identified the root causes of the problem: the storage tank of P·O42.5 bulk cement had not been cleaned for a long time, and when the storage level was low, clumps on the tank wall caused blockage. In addition, the shipping settings were unreasonable as there was only a weighbridge at the refill port, resulting in frequent unloading and reloading of vehicles at other discharge ports, and leading to low weighing efficiency.

The base immediately established a special team and formulated a plan. It organized the installation of weighbridges on the No. 2 and No. 3 bulk loading lanes which put into use in April and June respectively. On 20 April, the P·O42.5 bulk cement storage tank was transferred from Tank No. 6 to Tank No. 5, and Tank No. 6 was cleared. At the same time, the cleaning of the original storage tank was accelerated, and the Production Department and the Storage and Transportation Department were coordinated to ensure the operation at a high level of materials. Subsequently, the weighbridges at the No. 1 and No. 4 bulk cement discharge ports were also put into use in August. Since May, the shipping operations of the base had returned to normal, and the problem of low shipping efficiency of bulk cement had been effectively resolved.

Advancing Together with Employees

Safeguarding basic rights

Legal employment

We strictly adhere to relevant laws and regulations, including the *Labour Law of the People's Republic of China*, the *Labor Contract Law of the People's Republic of China*, and the *Provisions on Prohibition of Child Labour*. We also align with internationally recognized human rights principles outlined in the United Nations' *Universal Declaration of Human Rights*, the *International Covenant on Civil and Political Rights*, and the core conventions of the *International Labour Organization*. To ensure compliance, we have established comprehensive management systems, such as the *Labor Contract Management Measures of China Resources Building Materials Technology Holdings Limited*, the *Talent Management Measures of China Resources Building Materials Technology Holdings Limited*, and the *Employee Attendance and Leave Management Measures of China Resources Building Materials Technology Holdings Limited*. These policies ensure fair treatment of employees regardless of nationality, race, gender, religious beliefs, or cultural background. During recruitment and hiring processes, we strictly protect employees' personal information and privacy, verify each new employee's identity, and prohibit the employment of child labor or forced labor.

Statistical indicators		2022	2023	2024
Employees by region	Chinese Mainland(Person)	18,702	17,596	16,645
	Hong Kong SAR, China(Person)	344	343	385
Employees by gender	Number of male employees(Person)	15,677	14,839	14,110
	Number of female employees(Person)	3,369	3,100	2,920
	Proportion of male employees(%)	82	83	83
	Proportion of female employees(%)	18	17	17
Employees by age group	Number of employees aged 29 and below(Person)	1,786	1,656	1,668
	Number of employees aged 30 to 39(Person)	7,524	6,778	5,986
	Number of employees aged 40 to 49(Person)	6,814	6,456	6,130
	Number of employees aged 50 and above(Person)	2,922	3,049	3,246

Note: During the reporting period, the Company had no part-time employees; all employees were full-time.

Democratic management

We have established and improved systems and processes for democratic management, continuously refining the operational mechanisms of trade unions and workers' congresses. By leveraging digital tools, we standardize the functioning of workers' congresses, effectively ensuring that employee representatives exercise their rights and duties in accordance with the law. To address complaints and respond to the reasonable concerns of employees and stakeholders, we have set up diversified communication channels. These include prominently displaying a public mailbox on our official website, establishing a dedicated hotline, developing an "online feedback" feature, and creating a People-Oriented Service Studio. These measures ensure that employees' rights to information, participation, expression, and oversight are fully protected.



Lianjiang Industrial Park holds a workers' congress.

Remuneration and benefits

In 2024 the supplementary medical insurance program paid out over **RMB 13 million** in claims, benefiting more than **1,400** employees and their family members

We have established a robust remuneration incentive and performance management system, actively promoting various positive incentive policies. Meanwhile, we have increased salaries for low-income frontline positions, implemented strategies to allocate bonuses for management talent toward the business frontlines, and continued our over-target incentive-sharing mechanism. Additionally, we introduced milestone-based evaluation incentives for R&D personnel and added awards for strategic emerging talent project development, further motivating innovation and entrepreneurship among diverse talents.

We comply with legal requirements by contributing to social insurance and housing funds, purchasing corporate annuities, and providing Mandatory Provident Fund (MPF) coverage for employees in Hong Kong SAR. These measures comprehensively support employees in areas such as childbirth, medical needs, household registration transfers, and retirement planning. For 16 consecutive years, we have provided supplementary medical insurance for employees and their immediate family members (up to two dependents), ensuring full coverage for hospitalization, critical illnesses, and accidental injuries. In 2024, the supplementary medical insurance program paid out over RMB 13 million in claims, benefiting more than 1,400 employees and their family members.

Occupational health

In 2024 we achieved **100%** coverage of the ISO 45001:2018 occupational health and safety management system.

We strictly fulfill our responsibilities for occupational disease prevention and continuously improve our occupational health management system. In 2024, we achieved 100% coverage of the ISO 45001:2018 occupational health and safety management system. We prioritize the adoption of new technologies, processes, equipment, and materials that help prevent occupational diseases and protect workers' health, completing the construction of 52 automatic bagging lines and 39 automatic loading lines. Additionally, we implemented 57 key projects aimed at addressing major occupational hazards.

In 2024, we actively promoted the development of healthy enterprises and recognized outstanding individuals as Health Ambassadors, with four new provincial-level Health Ambassadors added. Tianyang Industrial Park successfully passed the national-level Healthy Enterprise evaluation, while Yanshi Cement and Nanning Concrete Wuhe Station were honored as exemplary enterprises in the national Healthy Enterprise initiative. Projects such as the "Intelligent Health Station" and "Employee Wellness Room" launched by Fuchuan Cement and Guigang Cement have significantly enhanced employees' health protection.



Yanshi Cement Trade Union partners with Xinluo District Federation of Trade Unions in Longyan City to host a mental health lecture

Emphasizing growth and development

Employee training

Our talent development is rooted in the principles of "strategic development needs, organizational capability building, and employee growth aspirations". Through comprehensive coverage across "employee groups, professional fields, and management processes", we cultivate the talent necessary to become a respected world-class building materials technology enterprise.



We build frameworks and optimize talent development systems

- In 2024, we continued to enrich our "13323" training system, focusing on the penetration of SOC during the "14th Five-Year Plan" period and the implementation of the "1211" talent objectives. We dynamically optimize our project and curriculum systems, diversify the "3+1" talent cultivation model, and support the implementation of the Company's "595" strategic initiatives. Leveraging a campus that integrates industry, academia, and research, we have established eight major sectors to create a distinctive campus service model tailored to our needs.

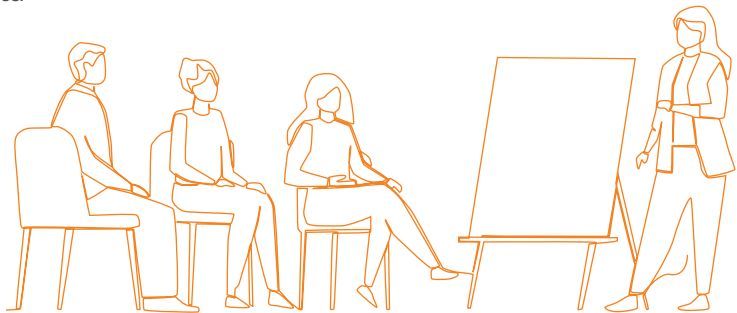
Cultivation stage	Stage 1	Stage 2	Stage3	Stage4	Stage5	Stage6	Stage7	Stage8	
Target group	University graduates	Youth talents	Grassroots reserve	Mid-level reserve	Deputy reserve for directly managed executives	Production base head reserve	Newly appointed directly managed executives	Current base leaders	Core position successors of CR Bldg Materials Tech
Training program	Future Star Boot Camp+	Runpeng Program +	Grassroots Reserve Program (Customized by regions/business divisions and production bases)	Mid-Level Reserve Program	Young Elite Program	Reserve Cultivation Program	Training class for newly appointed directly managed executives	Leadership refinement plan	Outstanding Youth Cadres Training Program China Resource Philosophy Training
Coordinating unit	CR Bldg Materials Tech, regions/business divisions		Production bases	Regions/ business divisions	CR Bldg Materials Tech			The Group	

We enhance capabilities and develop high-quality training courses

In 2024 we have specifically developed

22 case studies and 37 new courses

- Focusing on strategic advancement and new business expansion, we have specifically developed 22 case studies and 37 new courses. Among these, the course titled *Lighthouse Factory Leading Innovation, Technology Talent Driving Future Equipment Intelligent Diagnosis Project* was recognized as an outstanding training program by the Group. Additionally, two courses were rated as excellent courses by the Group, and three case studies were acknowledged as exemplary cases.



In 2024

Over 2,000 online certification exams have been administered, with participation from 52,000 individuals

We highlight distinctiveness and build a comprehensive online platform

- We have added 214 new micro-courses on job-specific knowledge, bringing the total number of online courses to over 1,700. Meanwhile, we have conducted 56 online training camps and quiz competitions, engaging more than 460,000 participants and achieving full employee coverage. Additionally, we have launched an online section dedicated to team building, featuring 14 serialized online courses. Over 2,000 online certification exams have been administered, with participation from 52,000 individuals.

We strengthen skills and build a platform for skill competitions

- We hosted skill competitions in equipment intelligent diagnostics, IT expertise, concrete business, and artificial stone replication techniques, creating specialized brands for labor competitions. Meanwhile, we also organized participation in the 2024 National Building Materials Industry Workers' Competition for High-Quality Development (Quality Management category) and the 2024 Cement Industry Chemical Analysis Skills Competition, and won the Outstanding Organization Award and Third Prize in the Team Category, effectively enhancing employees' professional skills and competencies.



Deepening digital skills and excelling in competitions

From April 15 to April 19, 2024, we organized a specialized training and skills competition event titled Spark Class for equipment intelligent diagnosis engineers. This event focused on enhancing digital literacy and skills through a comprehensive program that included face-to-face teaching, discussion sessions, skill competitions, field visits, mentor talks, and case study sharing. Through the event, we aimed to equip participants with the ability to independently generate equipment health reports and significantly enhance their capabilities in equipment intelligent diagnostics.



2024 Spark Class Skills Competition for Equipment Intelligent Diagnosis Engineers

Further reading

CR Bldg Materials Tech's Spark Class

The Spark Class project, spanning one year, consisted of three phases and 23 courses designed to precisely enhance the skills and competencies of participating employees. This project plays a crucial role in cultivating a team of intelligent diagnosis engineers who not only understand business operations but also possess equipment fault diagnosis skills and lean management capabilities. By developing this specialized workforce, we strengthen our skill talent base, supporting the successful implementation of our "595" strategic initiatives.





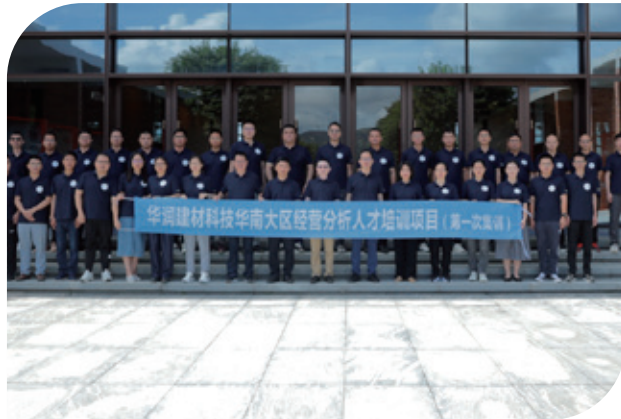
The closing ceremony of the South China No. 8 Camp (CR Bldg Materials Tech Camp) of the 2024 China Resources Group Future Stars New Employee Boot Camp was held at the CR Learning and Innovation Center in Guangzhou



CR Bldg Materials Tech hosts the 2024 Concrete Technology Skills Competition Final



CR Bldg Materials Tech conducts 2024 QPM Training for Mid-Level Procurement Personnel



South China Region Business Analysis Talent Training Program

Career development

The Company continues to broaden paths for talent growth, optimizing the position system for skill-based service roles. We released the *Skill Service Qualification Standards of CR Bldg Materials Tech Holdings Limited (2024 Edition)* and the *Guidelines for Building a Skilled Talent Team of CR Bldg Materials Tech Holdings Limited*, which define the qualification criteria and evaluation processes for senior technicians and master craftsmen, guiding employers in developing and managing skilled talent teams. Moreover, we advance talent evaluation by continuously conducting professional title evaluations, and establishing clear guidelines, checklists, and other standards for the review process. Additionally, we launched Phase I of the Distinguished Engineer Practical Excellence Training Program, focusing on real-world engineering challenges at the production frontline. Through a "learning-by-doing" approach, the program significantly enhances the technical skills of skilled workers, resulting in an 8.7% increase in the number of senior engineers.

In 2024

we organized employees to apply for professional title evaluations in engineering, economics, and accounting series, achieving a success rate of over

90%



candidates passed the review	30	including senior engineers	7	engineers	19	assistant engineers	4
candidates were certified	35	including engineers	3	assistant engineers	31	technician	1



【Scan the QR code to read:】
New Image, New Journey |
From technician
to innovation leader:
a journey of craftsmanship and
original aspirations

Fengkai Cement holds welding skills certification unveiling ceremony

On November 8, 2024, Fengkai Cement's Vocational Skill Rating Organization held an unveiling ceremony for welder skill certification qualifications. This event marks another significant step forward in Fengkai Cement's talent cultivation platform, following its earlier success in obtaining electrician skill certification qualifications. Fengkai Cement can now officially certify welding skills from the entry-level to technician levels, spanning four grades. This enhancement contributes to establishing a more extensive and solid talent support system.



Strengthening employee care

Recreational and cultural activities

Guided by a people-centric philosophy, we prioritize employee well-being by organizing sports competitions, birthday celebrations, book clubs, fellowship events, and a variety of holiday festivities and cultural activities. These activities effectively alleviate work-related stress, enrich employees' leisure time, foster a pleasant workplace environment, and enhance team happiness and cohesion. In 2024, the Company's headquarters labor union established seven interest groups, including basketball, badminton, soccer, and swimming, hosting a total of 200 group activities.

In 2024
the Company's
headquarters labor
union established

7
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including basketball,
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and swimming,
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200
group activities



The 6th Runfeng Cup Basketball Tournament of CR Bldg Materials Tech



The 4th Runpin Cup Badminton Tournament of CR Bldg Materials Tech



CR Bldg Materials Tech's Meet in Summer, Grow Together Youth Networking Event



Anshun Industrial Park hosts Youthful Journeys, Destined Encounters Fellowship Event



【Scan the QR code to read】
CR Bldg Materials Tech
organizes 2024 Hong Kong
Employee Family Day &
National Day Fun Sports Event



Zhangping Cement organizes employees to participate in the National Fitness Walk Event



Tianyang Industrial Park hosts International Women's Day Event

Care and support

The Company demonstrates deep concern for employees' work and life by upgrading the headquarters' Employee Home and establishing the Runxin Workshop · Building Materials Tech Branch, a dedicated initiative to support employees' physical and mental well-being. These efforts effectively convey organizational warmth. The Company pays close attention to employee needs, addressing practical issues such as dormitory upgrades, workplace environment improvements, and youth fellowship activities, successfully implementing 200 annual projects aimed at improving employee welfare. In 2024, we launched the "Mutual Care and Support Program", raising RMB 550,000 in employee donations. The Program assisted 35 employees and their immediate family members facing illness or hardship, distributing RMB 1.256 million in aid.

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Fangchenggang Cement conducts Spring Festival Care for employees in need



Yangchun Cement launches 2024 Summer Refreshment Campaign



Jingang Cement builds basketball courts, volleyball courts, and badminton courts for its employees



Dongguan Cement, in collaboration with the Cultural, Educational, Sports, and Tourism Office of Shatian Town, invites professional sports training coaches to offer free summer sports programs for employees' children

Stakeholder comment

"After the Company learned about my breast cancer diagnosis, they promptly assisted me in applying for the Gratitude Fund, critical illness insurance claims, and national-level aid for employees in hardship. Leaders and colleagues visited me multiple times at the hospital and at home, offering care and assistance that helped me regain confidence and stay optimistic about life"

-A beneficiary employee at Lianjiang Fengcheng Cement

United Collaboration for Mutual Success
Striving for mutual benefit

Partnering with enterprises for progress

We actively build mutually beneficial platforms and have established long-term strategic partnerships with several industry-leading enterprises. In 2024, we signed strategic agreements with Guojian Lianxin Certification Center, Guangxi Beibu Gulf Investment Group, Guizhou Transportation Construction Investment Trade & Logistics, etc. These partnerships focus on deep collaboration in areas such as dual carbon standards development, carbon management enhancement and certification, basic building materials supply, green building materials industrial chain upgrades, technology R&D, product optimization, and resource integration, driving industrial synergy and innovation. Additionally, we strengthened cooperation with CR MIXC Lifestyle and Logic Furniture, exploring new growth opportunities through resource sharing, technology development, and market expansion to promote cross-sector business synergies.

The A-Level Unit in the 2024 Procurement and Supply Chain Management Benchmarking Evaluation by China Resource Group.



The Outstanding Signatory at the 7th China International Import Expo.



The Company and representatives of the building materials ecosystem sign strategic cooperation agreements, opening a new chapter in international collaboration for the industry

On November 20, 2024, the 2024 Building Materials Industry International Cooperation Development Forum, organized by the China Building Materials Federation and hosted by CR Building Materials Technology, was successfully held in Shenzhen. During the event, we signed strategic cooperation agreements with 24 domestic and international enterprises. Together, we will explore future development paths for the building materials industry, drive technological innovation and industrial upgrading, and collaborate to build a greener, low-carbon, and more sustainable building materials ecosystem.



Government-enterprise collaboration for progress

We actively integrate into the broader local economic development agenda, supporting regional industrial transformation, upgrading, and green growth. In 2024, we engaged in in-depth exchanges with the Chenzhou Municipal People's Government, further deepening cooperation in local industrial planning, basic building materials transformation, and green upgrades to drive high-quality regional economic development. Additionally, we strengthened collaboration with the Ding'an County Government in Hainan, focusing on extending the building materials industry chain, advancing green mine construction, and promoting ecological economic development, providing robust support for local socioeconomic progress.

Advancing industry-academia-research collaboration

The Company actively promotes collaborative innovation with universities. We signed a framework cooperation agreement with Jinan University, focusing on comprehensive collaboration in technology R&D, platform building, and talent development. We also held in-depth discussions with the University of Jinan on R&D and joint talent cultivation in areas like low-carbon cement and advanced ceramics, reaching multiple cooperation agreements. Additionally, we partnered with Southeast University to implement a joint master's and doctoral training program, delivering high-end technical talent to the industry through enterprise-based practical training.

Partnering with Jinan University to launch a new chapter in "industry-academia-research-application" collaboration

On July 17, 2024, we signed a cooperation framework agreement with Jinan University. The agreement initiates comprehensive, in-depth, and diverse collaboration across technology R&D, platform building, and talent development. This partnership marks a new phase of strategic alignment and mutual growth for both the Company and Jinan University. It also represents an active exploration of the "industry-academia-research-application" integration model. By combining their efforts, the two parties aim to significantly contribute to technological progress, industrial upgrading, and the cultivation of high-quality professionals within the building materials industry.



Media cooperation

We actively maintain regular communication with the media, focusing on joint promotional campaigns around themes such as project launches, signings, and award recognitions. Through our annual thematic campaign "Reborn for Innovation", we highlight our efforts and achievements in fostering new quality productive forces, effectively signaling our transformation and upgrading. We invite mainstream media to conduct on-site interviews during events like Open Days, proactively showcasing our culture, values, and exemplary practices in corporate social responsibility. Additionally, we strengthen public opinion management by integrating inspection, prevention, and control measures, conducting annual reviews of online ideological platforms, and routinely monitoring public opinion to establish a rapid response system for negative publicity. These efforts help create a favorable public opinion environment and digital ecosystem for our operations and development.

Advancing industry development

We are deeply involved in the research and publication of standards in areas such as green building materials and solid waste recycling. Meanwhile, we enhance our engagement with industry associations to discuss topics like green building materials industrial transformation, resource integration, and intelligent management. We also actively organize and participate in industry conferences and forums to promote communication and collaboration within the industry, aiming to jointly write a new chapter in industry development.

New products shine at the 24th China Xiamen International Stone Fair, leading innovation in the building materials industry

From March 16 to 19, 2024, we showcased our full range of "Runpin" stone products at the 24th Xiamen International Stone Fair held at the Xiamen International Conference & Exhibition Center. During the fair, we hosted a new product launch and partner strategic meeting themed Nurturing Excellence, Cultivating Better Life, debuted the 2024 Runpin product line. The event included the issuance of brand authorization certificates and the signing of task agreements. We also engaged in in-depth discussions with partners on future collaboration directions, market strategies, and win-win approaches, aiming to jointly create a brighter future for the industry.



Runpin New Product Launch Event



We showcased our Runpin booth at the Healthy Living Chain exhibition area of the 2nd China International Supply Chain Expo



We hosted the 2024 Building Materials Industry International Cooperation Development Forum



Yamama Cement from Saudi Arabia visits Tianyang Industrial Park



Chen Huan, Executive Vice President of the Guangdong Building Materials Association, and his delegation visited the Shenzhen headquarters of CR Bldg Materials Tech

Building a responsible supply chain

Promoting integrity and fairness

In 2024 we achieved a public procurement rate of 96%

We uphold ethical business practices and advocate for transparent procurement, fully implementing the *Procurement Management Systems of China Resources Building Materials Technology Holdings Limited*. Meanwhile, we have established a procurement management framework based on standardization, supported by routine oversight, and reinforced by compliance training. By integrating advanced digital technologies, we have enhanced the functionality of our "Runfeng Procurement" system, achieving efficient collaboration and intelligent, automated management across all stages of the procurement supply chain and value chain. Additionally, we have also strengthened our risk control mechanism, focusing on "prevention beforehand, control during operations, and supervision afterward". All suppliers are required to sign the *Integrity and Compliance Commitment Letter*, and regular self-inspections are conducted to ensure procurement compliance. Suppliers found engaging in bid collusion or failing to fulfill contracts are blacklisted and excluded from cooperation for three years, ensuring all procurement activities remain lawful and compliant. In 2024, we achieved a public procurement rate of 96%.

Strengthening supplier management

We implement the *Supplier Management Measures of China Resources Building Materials Technology Holdings Limited* and other related systems, aiming to establish a scientific, comprehensive, and dynamic supplier management mechanism. This effort seeks to solidify long-term partnerships based on mutual benefit and maximize the overall efficiency of the supply chain.

We ensure the quality of suppliers entering our database through a comprehensive assessment.

This is achieved by standardizing entry criteria and tightening selection requirements. Factors such as years of cooperation, service capabilities, company size, price competitiveness, and supply share are considered to recruit high-quality suppliers, with appropriate resource allocation provided to support them.

We shift our concept and supplier management mode.

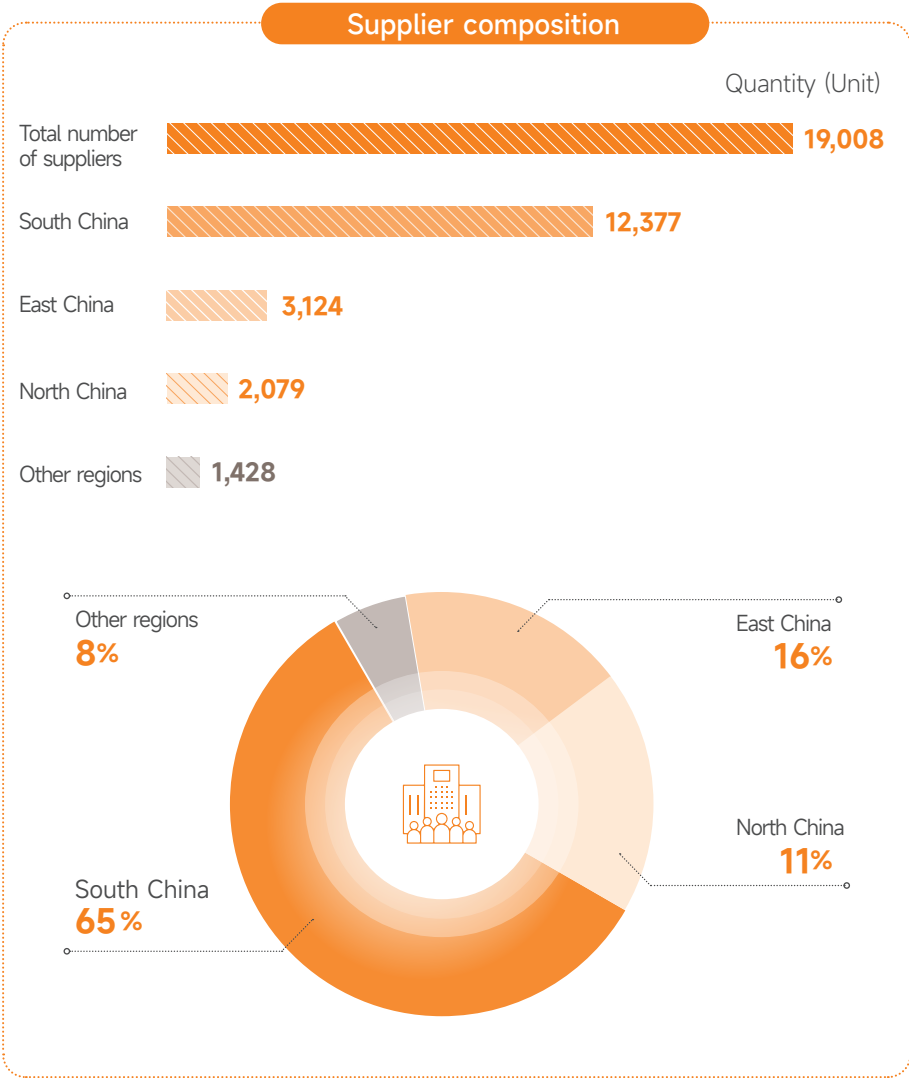
The supplier management is transformed from a minimal-oversight, heavy-elimination approach to one of strong oversight with minimal elimination. This shift encompasses rigorous certification, training, improvement, and evaluation processes to foster effective supplier development.

We strengthen communication to promote the sustainable growth of suppliers

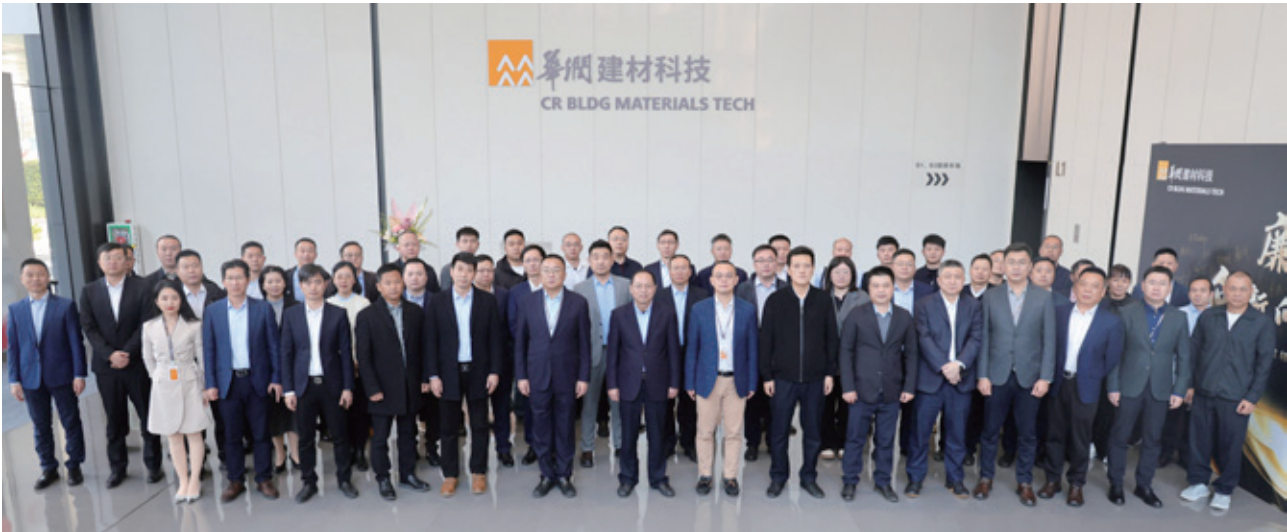
We hold annual supplier conferences to communicate legal requirements and share typical cases. A joint innovation initiative list is released, and 27 outstanding suppliers are recognized, fostering continuous growth and collaboration.

We conduct ongoing monitoring for supplier evaluation and assessment.

A full lifecycle management system has been established for supplier evaluation, assessment, and exit procedures. Key measures include conducting on-site inspections of suppliers, regularly researching raw material markets, and performing on-site visits and sampling. Violations are strictly penalized, and substandard suppliers are eliminated.



- 2024
- 43 suppliers had their cooperation terminated due to non-compliance
 - 262 potential suppliers were disqualified for non-compliance
 - 1,249 suppliers participated in training programs



CR Bldg Materials Tech 2024 Supplier Conference

Building a responsible supply chain

Our production bases steadfastly adhere to safety and environmental protection principles. They conduct rigorous pre-entry evaluations for all stakeholders (including customers, suppliers, and other parties related to the factories) to ensure their safety qualifications. Safety and environmental agreements are signed with all stakeholders to enforce accountability and enhance environmental awareness and standards. Stakeholders are integrated into the Company's safety management system through measures such as organizing suppliers to participate in monthly EHS meetings, safety training sessions, pre-shift safety briefings, and specialized safety inspections, strengthening safety management during operations. Strict evaluations are carried out at the end of projects or annually to continuously optimize stakeholder safety management. Moreover, a comprehensive, multi-layered safety framework ensures stable and orderly production at the bases.

Leading industrial chain development

In 2024
Huizhou Cement achieved
100%
e-commerce platform
adoption for the sale
of rough stones and
aggregates

Luoding Cement utilizing
a cumulative
450,000 tons
of high-magnesium
waste stone

We actively assume the role of a leader in the industrial chain, taking on the important responsibility of being the "chain leader". Meanwhile, we are committed to collaborating with upstream and downstream partners to promote the coordinated development of the entire chain.

We promote collaborative procurement and collaborate with CR Power on direct power supply and by-product bundling for 2025 and partner with CR ENV Protection on alternative fuel business, achieving mutual benefits.



In 2024, Huizhou Cement achieved 100% e-commerce platform adoption for the sale of rough stones and aggregates. All customers can make purchases conveniently through the platform, significantly improving efficiency and reducing operational costs.



Luoding Cement worked closely with downstream concrete enterprises, utilizing a cumulative 450,000 tons of high-magnesium waste stone. This collaboration not only boosted the market competitiveness of concrete companies but also increased cement demand, creating a virtuous cycle of mutual promotion.



We enhance market research and intensify supplier, competitor, and customer visits, deepening engagement and optimizing raw material acceptance standards. While improving product quality, we introduce new channels to foster healthy competition.



Ensuring supply chain stability

In 2024
The South China
Region completing the
procurement of
11 types of raw
materials from
18 manufacturers
at the source

To address the impacts and challenges posed by natural disasters and intense market competition on the supply chain, we employ measures such as adjusting procurement models, procurement cycles, and payment methods to ensure a secure and stable supply chain.

The South China Region adopted a cross-organizational direct sourcing model, completing the procurement of 11 types of raw materials from 18 manufacturers at the source in 2024. This significantly reduced procurement costs, enhanced resource control, and supported the long-term stable operation of production bases.

Zhaoqing Runsheng innovatively adopted a pricing method based on tons of product (aggregate) for the procurement of crusher liners. By signing annual supply contracts and collaborating closely with liner suppliers, both parties improved liner quality, reduced buyer inventory buildup, and achieved mutual benefits.

The Functional Building Materials Division flexibly adjusts resin procurement prices quarterly, referencing the weekly average prices from Sublime China Information Co., Ltd. (SCI), with weekly price updates. Titanium dioxide and logistics services are procured annually, with unit prices adjusted monthly based on SCI's monthly averages and government oil price fluctuations, respectively.



Jointly Promoting Social Well-being

Supporting Hong Kong SAR's development

We actively fulfill our social responsibilities as a state-owned enterprise based in Hong Kong. Meanwhile, we focus on promoting Hong Kong SAR's prosperity and stability, nurturing youth development, advancing community engagement programs, fostering patriotism education, and engaging in charitable initiatives. Through concrete actions, we create value for Hong Kong's development.

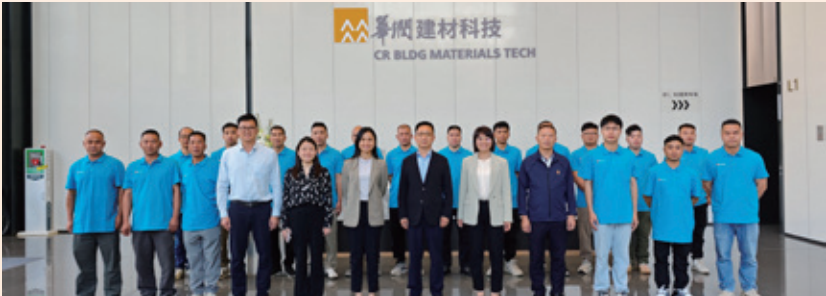
Upholding prosperity and stability

In 2024
We formed a
dedicated task force,
successfully securing
39
quotas and selecting
18
employees from a
pool of 418 mainland
employees as the
first batch to work in
Hong Kong SAR

We remain committed to Hong Kong SAR's positioning and support the establishment of the Youth Development Committee under the Hong Kong Construction Materials Association (HKCMA). This Committee will contribute ideas and strategies for various activities planned by the HKCMA over the next two years. By organizing college and university recruitment fairs, Greater Bay Area exchange programs, and youth cultural and sports events within the industry, the Committee aims to attract young talent to the construction materials industry, fostering sustainable development for both the industry and Hong Kong society. The Committee also coordinated a visit by the HKCMA to the Fengkai Cement. Through in-depth inspections of the park's digital transformation pilot projects, the full-factory intelligent control center, and the 100,000-ton carbon utilization R&D platform, the visit helped Hong Kong SAR's industry gain a deeper understanding of CR Bldg Materials Tech's operations and transformation efforts. This initiative has laid a solid foundation for future cross-border business collaboration.

Leveraging policies of Hong Kong SAR Government to introduce mainland employees

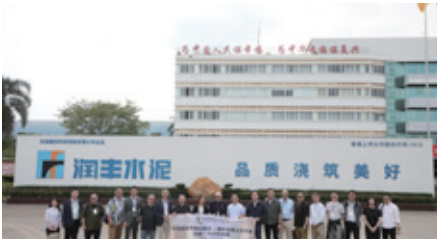
We actively responded to the Hong Kong SAR Government's Enhanced Supplementary Labour Scheme to help address its labor shortage. We formed a dedicated task force, successfully securing 39 quotas and selecting 18 employees from a pool of 418 mainland employees as the first batch to work in Hong Kong SAR. Additionally, the Hong Kong Business Division established a special working group to support mainland employees working in Hong Kong SAR, focusing on their welfare and development to help them adapt to the new environment. This initiative strengthened employee engagement and belonging, effectively promoting talent exchange and collaboration between Hong Kong SAR and Chinese Mainland.



CR Bldg Materials Tech officially launched the first batch of mainland employees to work in Hong Kong SAR



On April 25, 2024, CR Bldg Materials Tech supported the Hong Kong Construction Materials Association (HKCMA) in establishing its Youth Development Committee



CR Bldg Materials Tech organized and coordinated a visit by the HKCMA to the Fengkai Cement for an inspection

Supporting youth development

We implemented the 2024 Greater Bay Area Youth Exchange Program for Construction Industry , organizing and coordinating a visit for over 70 Hong Kong youth from the Hong Kong Construction Industry Council to our artificial stone base at Dongguan Global Classic New Materials Co., Ltd. Through site visits and in-depth research, the program helped broaden the horizons of Hong Kong youth, providing them with a comprehensive understanding of the manufacturing industry in the Guangdong-Hong Kong-Macao Greater Bay Area. It also encouraged young people in Hong Kong SAR to actively contribute to national development and support Hong Kong SAR's prosperity and stability.



Hong Kong youth visited and conducted research at CR Bldg Materials Tech's artificial stone base as part of the 2024 Construction Industry Greater Bay Area Youth Exchange Program

Stakeholder comment

"This year's exchange program was not only a journey of technology and opportunities but also a 'journey of talent'. Currently, the Hong Kong SAR construction industry has access to technology and opportunities; what's more crucial is attracting innovative and talented individuals to seize these opportunities and effectively utilize technology for development. I hope that this trip marks the beginning of a 'dream-building journey' for all our young leaders and students. Let us work together to open new chapters for the construction industry and jointly create new legends for China and Hong Kong SAR"

-Lam Chi Man, Under Secretary for Development, Hong Kong SAR

Advancing the community engagement programs

We continuously advance our community engagement programs. A total of 23 employees from the Hong Kong Business Division, along with representatives from Redland Concrete, Everbest Logistics, and Quality Control Consultants Limited, visited key locations including the Nanning Shared Service Center, Nanning R&D Center, Tianyang Lighthouse Factory, the Southwest China Region headquarters, and the China Resources Baise Hope Town. Through in-depth tours and exchange sessions, participants deepened their understanding of the Company's mainland business operations, and digital and intelligent development. The program also strengthened cultural alignment and enhanced communication and collaboration between Hong Kong SAR and Chinese Mainland.



Explore China Resources, Nourish Body and Soul – Hong Kong Business Division hosts 2024 Community Engagement Program

Promoting patriotism education

The Company is committed to fostering a strong sense of national belief and ethnic responsibility among employees. We organized visits to the Better Than Ever Exhibition of Famous Works Celebrating the 75th Anniversary of the Founding of the People's Republic of China, featuring works by renowned artists, as well as the *National Security Exhibition* at the Hong Kong Museum of History. These activities further strengthened employees' awareness and commitment to safeguarding national security.



The Company organized visits to the Better Than Ever Exhibition of Famous Works Celebrating the 75th Anniversary of the Founding of the People's Republic of China

Engaging in community building

The Company actively contributes to charitable and community initiatives, serving Hong Kong SAR society through concrete actions. We have established six charitable brands: Runai Community, Repair and Build Hong Kong SAR, Cantonese Connection, Running for Unlimited Energy, Moving Forward Together, and Growing Together, Bound by Same Roots. Nine community activities were organized, engaging over 100 volunteers and directly benefiting more than 2,000 residents.

In 2024
We have established
6
charitable brands
engaging over
100
volunteers and
directly benefiting
more than
2,000
residents



Participated in the Tung Wah Group of Hospitals 2024 Corporate Flag Day Charity Event



Launched the Repair and Build Hong Kong SAR community free repair initiative



Visited residents of Lung Kwu Tan Village in Tuen Mun together with district councilors and distributed care packages



Participated in the Construction Industry Volunteer Service Day and the National Day Blessing Bag Distribution event celebrating the 75th anniversary of the founding of the People's Republic of China

Devotion to philanthropy

In 2024 we donated a total of **RMB 2,096,300** in charitable contributions through funds, goods, and other forms

CR Bldg Materials Tech has long been committed to philanthropic causes. The Company issued the *Management Measures for the Gratitude and Mutual Care Programs of China Resources Building Materials Technology Holdings Limited* to continuously improve long-term mechanisms for aiding those in need and fostering mutual support. We actively promote the spirit of volunteerism, focus on vulnerable groups in society, and organize various volunteer activities, including cultural and sports event services, blood donation drives, and initiatives like Practical Support for the People. In 2024, we donated a total of RMB 2,096,300 in charitable contributions through funds, goods, and other forms.

Conveying warmth and uniting strength for disaster relief

In 2024, Typhoons Gaemi and Yagi struck in succession, causing severe storms that impacted multiple regions, including Zixing City and Pingyuan County. These disasters posed significant threats to the safety of people's lives and properties, as well as to roads and farmlands. The Changjiang Industrial Park, Liangtian Cement, and other entities collaborated closely and responded proactively. On one hand, they promptly coordinated post-disaster recovery and resumption of operations, contributing to reconstruction efforts. On the other hand, they provided care and support to affected areas through donations of supplies, demonstrating human warmth amidst the devastation with concrete actions.



A vehicle loaded with over RMB 100,000 worth of relief supplies from Liangtian Cement promptly departed for Zixing City



Ding'an Runfeng Mining organized its female employees to assist local farmers in harvesting chili peppers



The 5th Run for Excellence public welfare cloud running organized by CR Bldg Materials Tech



Hongshui River Industrial Park launched a Practical Support for the People volunteer service campaign to benefit local residents



Nanning Cement and Guangxi Runhan Company jointly organized the 8th Runmiao Love Fund charity event to support education



Fangchenggang Cement organized volunteers to participate in the Community Care, Deep Compassion blood donation event



The Southeast China Region held a Celebrating Children's Day with Love charity event at the Longyan Special Education School

Commitments and Fulfillments



Commitments for 2024



Fulfillments in 2024



Commitments for 2025

- Continuously enhance product quality and customer experience, and strive to maintain a comprehensive customer satisfaction rate of no less than 98% in 2024
- Accelerate the upgrading of traditional industries and strengthen foundations to enhance core competitiveness
- Deepen the construction of a three-tier talent pool, implement successor programs, and further promote the rejuvenation of leadership
- Clarify talent needs, adopt an open approach to talent acquisition, and focus on targeted recruitment of leading professionals
- Leverage the Center for Technology and Innovation as a talent recruitment platform and strengthen talent exchange between Hong Kong SAR and Chinese Mainland
- Fulfill the social responsibilities of a central state-owned enterprise by continuously conducting charitable donations and providing assistance through the "Gratitude Fund", enhancing public well-being and happiness
- Respond to the "Hundreds of Counties, Thousands of Towns, and Tens of Thousands of Villages Development Project", support infrastructure development through cement or financial donations to help build livable, prosperous, and beautiful villages, consolidate achievements in poverty alleviation, and advance rural revitalization
- Made customer-oriented improvements to cement quality, including internal and external performance tests. A customer satisfaction survey collected **5,235** valid responses, achieving a satisfaction rate of **98.17%**
- Recruited **43** new mid-level managers and reassigned **42** underperformers based on comprehensive evaluation and organizational needs, thus improving the stability and structure of management teams at all levels
- Expanded talent acquisition thinking by broadening overseas recruitment channels based on business needs. Over **300** key position holders, core professionals, and recent graduates were hired within the year, establishing effective overseas talent recruitment channels and fulfilling talent security responsibilities
- Conducted targeted expansion and enhancement of Hong Kong SAR's talent pool, implemented a mainland employee work mechanism, and brought in **18** mainland employees to alleviate skill shortages in operational roles; carried out research on Hong Kong SAR employee turnover and supplemented employees through campus and social recruitment, leading to a steady increase in the number of employees in Hong Kong SAR
- Organized volunteer activities such as cultural and sports events, blood donation drives, and community service initiatives like Practical Support for the People. Total charitable donations amounted to RMB **2,096,300** in various forms, including funds and goods
- Allocated RMB **30,000** in free donations (including goods) to China Resources Hope Towns
- We will strictly enforce quality standards, uphold the quality baseline, and continuously improve product quality to establish premium regional products
- We will focus on high-end, intelligent, and green development by accelerating the application and promotion of new technologies to drive the transformation and upgrading of traditional businesses
- We will align with the "595" strategic initiatives to deliver on ten key priorities: implementing the Company's talent "refresh" plan, addressing gaps in core technical capabilities, reshaping industrial park organizations, rebuilding the foundation of talent management systems, establishing tiered leadership standards, reforming sales team assessment and incentive models, optimizing organizational performance evaluation systems, managing total wage allocation, revamping leadership assessment and incentive frameworks, coordinating targeted assistance programs, and strengthening the construction of organizational workforces to build a robust organizational force
- We will actively implement the rural revitalization strategy and leverage the Company's core strengths to launch the Runmei Countryside public welfare initiative
- We will develop and utilize employee service platforms, such as Employee Home and Runxin Workshop · Building Materials Tech Branch, to support employees' physical and mental well-being
- We will organize the 2025 Gratitude-Based Mutual Care Plan charity fundraising campaign to take responsibility for employees and their families, and protect the rights and interests of employees and their family members
- We will conduct central state-owned enterprise initiatives like the Spring Festival Consumption Assistance Action, Agriculture Promotion Week, and Collective Empowerment Campaigns to boost farmers' incomes and promote rural revitalization

Stepping Towards Green, Building Eco-friendly Home Through Low-carbon Development

Requirements and expectations:

We must firmly establish and act on the idea that lucid waters and lush mountains are invaluable assets. It is essential to strike a balance between high-quality development and high-level protection, between challenge addressing and coordinated governance, between natural recovery and artificial restoration, between external constraints and internal forces, and between commitments to dual carbon goals and independent actions. We should plan for industrial restructuring, pollution control, ecological protection and climate change mitigation efforts as a whole. We should reduce carbon emissions, minimize pollution, expand green spaces, achieve growth, safeguard national ecological security, construct ecological civilization system, prop up high-quality development with top-notch ecological environment, and take a faster pace to shape up a new pattern for building a beautiful China oriented to the modernization of harmonious coexistence between man and nature.

——Opinions of the CPC Central Committee and the State Council on Comprehensively Promoting the Building of a Beautiful China

Practices and responses:

With stress on classified management of ecological and environmental risks and construction of green factories, CR Bldg Materials Tech builds an environmental protection management system tailored to our own characteristics, puts 3C Carbon Neutrality Theory into practice, actively devotes to energy saving and emission reduction initiatives, contributes to building a beautiful China through green mines, and grows into a resource-saving and environment-friendly green enterprise. We upholds people-oriented philosophy that all accidents are preventable, follows the keynote of "13263" EHS Management System, makes continuous progress in work safety standardization and double prevention mechanism building, coordinates development and safety in a holistic manner, and forges ahead towards sustainable development.

SDGs issues involved in this chapter



Focused on Responsibility Strategy:

Manufacturing Eco-friendly Building Materials and Spearheading Industry-wide Green Development 68

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Focused on Responsibility Strategy:

Manufacturing Eco-friendly Building Materials and Spearheading Industry-wide Green Development

Against the severe backdrop of global climate change, traditional industries are facing a critical juncture of transformation. The building materials industry, characterized by high energy consumption and high emissions, is confronted with unprecedented challenges and opportunities. In this context, we vigorously develop a new ultra-low emissions engine, cultivate green and low-carbon momentums in new forms, blaze a new path for high-quality development in the building materials industry, and commit to pioneering in building a beautiful China with perpetually lush mountains, lucid waters, fresh air, and full of vitality.

Winning in Blue Sky Protection Campaign

With the introduction of a series of environmental protection policies, such as the *Opinions of the CPC Central Committee and the State Council on Making Decisive Efforts for Pollution Prevention and Control*, the *Action Plan for Continuous Improvement of Air Quality* and the *Opinions on Promoting Implementation of Ultra-low Emissions in Cement Industry*, it has become imperative for us to launch ultra-low emissions transformation in order to reduce pollution emissions and improve air quality on the way to sustainable development.

To address this challenge of the era, CR Bldg Materials Tech makes overall arrangement and shifts from point-to-point efforts to deep engagement, gradually pushing forward ultra-low emissions transformation based on ultra-low emissions technology research. According to the repeated research on tail flue gas denitrification projects of the existing cement kilns, catalyst poisoning, blockage, short service life and other problems exist in the traditional method of "high-temperature and high dust/medium dust Selective Catalytic Reduction (SCR) denitrification", potentially leading to excessive nitrogen oxide emissions concentrations, increased ammonia spray amounts, and ammonia escape in the production course. CR Bldg Materials Tech boldly questions the stability, reliability and economy of the whole-life-cycle operation and maintenance of this application and carries out process research and transformation.



Dust and nitrate integration removal equipment in Anshun Industry Park



Ultra-low emissions transformation equipment of Nanning Cement

After extensive explorations and demonstrations, following the ultra-low emissions transformation projects, production bases significantly improve the gas collection rate of production lines and the efficiency of waste gas treatment, substantially lowering exhaust gas escape concentrations and effectively decreasing ambient air pollutant concentrations. Nitrogen oxide and particulate emissions are controlled below 50 mg/m³ and 10 mg/m³, respectively, crystalizing evident environmental benefits.

Anshun Industry Park achieves the annual reduction of particulate matter emissions by

51.8 tons
and nitrogen oxide emissions by 425 tons



Anshun Industry Park achieves the annual reduction of particulate matter emissions by 51.8 tons and nitrogen oxide emissions by 425 tons, positively influencing local environmental protection and garnering significant attention from the government and media.

Nanning Cement achieves the annual nitrogen oxide emissions by

252 tons



Nanning Cement achieves the annual nitrogen oxide emissions by 252 tons, creating the first-ever cement clinker production line transformed for nitrogen oxide ultra-low emissions in Guangxi. It is included in project case of Action Learning + Decisive Battle of Pollution Prevention and Control in Nanning.

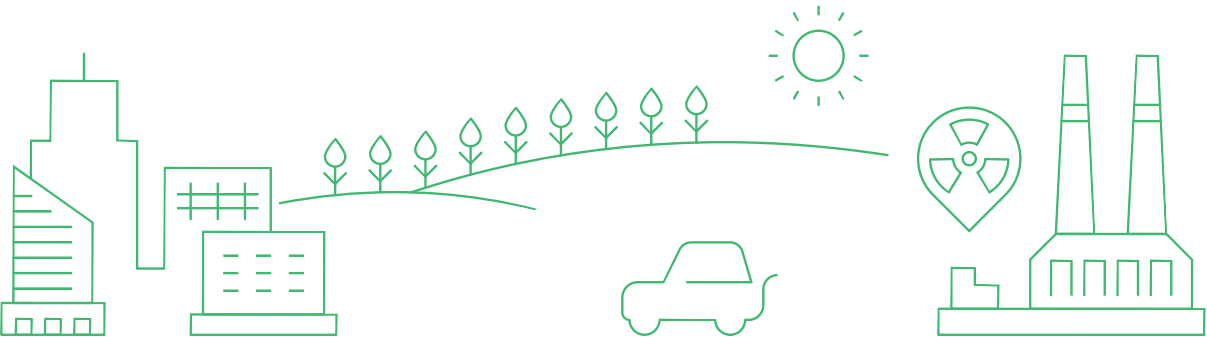
Changzhi Industry Park achieves the annual nitrogen oxide emission reduction by

over 800 tons



Changzhi Industry Park achieves the annual nitrogen oxide emission reduction by over 800 tons, with the average annual nitrogen oxide emissions concentrations of 20.13 mg/m³ and 19.85 mg/m³ in 2023 and 2024, respectively. Additionally, Changzhi Industry Park undergoes whole-system and whole-process upgrade in organized emissions, unorganized emissions, clean transportation, monitoring and other aspects, further improving the working environment quality in the production area.

The explorations and practices of CR Bldg Materials Tech in ultra-low emissions transformation not only yield both economic and environmental benefits, but also deliver standardized and normalized waste gas treatment demonstration projects to governmental bodies, enterprises, industry parks, etc. Furthermore, a batch of replicable and promotable demonstration projects spring up.



Building green and low-carbon dream

Despite existing carbon capture demonstration lines in the industry, full carbon neutrality remains a challenging goal due to the unique nature of cement industry, even without the use of fossil fuels like coal. Therefore, developing new large-scale carbon dioxide utilization technologies is crucial for driving cement industry towards carbon neutrality.

—Tao Congxi, Chief Expert of CR Bldg Materials Tech

To overcome the difficulty of industry-wide carbon neutrality, CR Bldg Materials Tech actively explores carbon utilization research and development platforms. By conducting research on carbon capture technologies across various process routes and advancing carbon utilization technologies, CR Bldg Materials Tech succeeds in technological development and industrialization of both carbon capture and carbon utilization. Based on independently developed carbon dioxide in-situ self-enrichment process reengineering technology suited to the characteristics of cement industry, 100,000-ton carbon utilization research and development platform project of Fengkai Cement was successfully launched and completed on May 18, 2024. Simultaneously, the construction work of 60,000-ton carbon neutrality research and development platform has commenced at Changjiang Industry Park, directing a new pathway for the industry to achieve carbon neutrality.



Trial run of 100,000-ton Carbon Research and Development Platform Project at Fengkai Cement



Rendering of Carbon Neutrality Research and Development Platform Project at Changjiang Industry Park

By the end of 2024
carbon capture concentration of projects
reached

82%
(close to expected target of 85%)

carbon capture scale of
100,000 tons/year

These projects can capture carbon dioxide from cement production process, and make it into new-type environmentally friendly building materials after specialized processing. This effectively reduces greenhouse gas emissions and significantly makes energy utilization more efficient. On carbon utilization end, CR Bldg Materials Tech constantly makes breakthroughs in key technologies for high-carbon sequestration non-autoclaved aerated concrete. CR Bldg Materials Tech also strives to build and operate China's first high-carbon sequestration non-autoclaved aerated concrete production line, designed for concrete carbon sequestration over 10wt%. By the end of 2024, carbon capture concentration of projects reached 82% (close to expected target of 85%), with carbon capture scale of 100,000 tons/year. As for key technology breakthroughs on carbon utilization end, the second stage of industrial test for carbon sequestration cellular lightweight concrete (CLC) was completed.

In response to the challenging carbon reduction tasks imposed by carbon peaking and carbon neutrality policies and increasingly stringent environmental requirements for the industry, CR Bldg Materials Tech puts 3C Carbon Neutrality Theory (low carbon source, process carbon reduction and end carbon removal) into practice by launching a series of green and low-carbon technological innovations and equipment upgrades for source and process carbon reduction. The fuel replacement rate increases by 2.4% year on year, while cement grinding power consumption decreases by 1.5-2.0 kW · h/t. CR Bldg Materials Tech indeed plays an exemplary and vanguard role in the green and low-carbon development of the cement industry.



【Scan the QR code for more
information】

Model organization and role
model workers in green
development of CR Bldg
Materials Tech

Advanced Organization Among China's Central SOEs:



Role Model Worker of China's central SOEs



Tao Congxi, Chief Expert of CR
Bldg Materials Tech



Sun Xuguang, Electrical Deputy Director,
Engineer of Luchuan Industry Park

Towards a greener, newer, and brighter future, CR Bldg Materials Tech will draw a development blueprint under the philosophy of harmonious coexistence between man and nature. CR Bldg Materials Tech will continuously gain ground in environmental protection and low-carbon fields, explore new technologies and pathways, write a brilliant chapter on green dream, and contribute to accelerating green transition of building materials industry and embracing sustainable development.

Improving Environmental Management

Environmental management system

In 2024
total funds of RMB
0.32 billion
were earmarked for technological transformation for energy saving and emission reduction, environmental monitoring, environmental protection publicity and training, online monitoring system upgrade and reconstruction, operation maintenance and other aspects.



CR Bldg Materials Tech strictly abides by the *Law of the People's Republic of China on Environmental Protection*, the *Law of the People's Republic of China on Water Pollution Prevention and Control*, the *Law of the People's Republic of China on Air Pollution Prevention and Control* and other relevant laws, regulations and industry standards. By stepping up the development of an environmental management system, CR Bldg Materials Tech enhances environmental management capabilities, regulates environmental behaviors, and effectively prevents and controls environmental pollution risks. Environmental management system shapes up and works in line with ISO 14001:2015, formulates detailed environmental policies, objectives and indicators, defines environmental management responsibilities, and conducts internal audits and evaluations on a regular basis. By the end of 2024, CR Bldg Materials Tech has achieved full coverage of ISO 14000 Environmental Management System Certification.

System framework

In echo with the needs of business development and Environment, Health, and Safety (EHS) management, CR Bldg Materials Tech revises and compiles systems in a systematic manner, including eight systems and norms were revised, compiled and released in 2024, including the *Guidelines for EHS Behavior Scoring System Management* and the *Regulations on Management of Severer and Heavier Punishments*, strengthening process control and replacing ex-post punishment with ex-ante prevention. In all aspects, CR Bldg Materials Tech advances the construction of safety standardization and dual prevention mechanism and innovates EHS evaluation and management practices.

Organization framework

Beginning with top-level design, CR Bldg Materials Tech establishes a three-tier control mechanism for EHS management and expressly defines the functional positioning and power-responsibility boundaries of departments at all levels, ensuring close integration and efficient coordination among decision-making, commanding, supervision, implementation, on-site control and other links. CR Bldg Materials Tech also selects and recruits outstanding talents engaged in mining engineering, geological engineering, mechanical and electrical engineering, environmental engineering and other related fields to serve as EHS managers at all levels.

Appraisal framework

CR Bldg Materials Tech keeps improving EHS evaluation system, establishes and refines long-acting EHS appraisal mechanism, sets target values, selects evaluation experts, and comprehensively evaluates the work performance of grassroots entities in environmental protection and other spheres, implements specialized safety and environmental protection rectifications of all kinds, bolsters process supervision and management, and moves EHS management of production bases on higher ground.

Environmental risk control

CR Bldg Materials Tech constantly reinforces environmental risk control, establishes and implements environmental assessment policies for new projects, early environmental warning and emergency response mechanism and regular environmental compliance inspection mechanism. CR Bldg Materials Tech issues a variety of policy and guideline interpretations and case warnings to guide production bases in identifying potential hazards, shapes up effective environmental risk control mechanism, develops emergency response plans for environmental accidents, and defuses environmental risks without delay.

CR Bldg Materials Tech strictly abides by the *Law of the People's Republic of China on Environmental Impact Assessment*, mobilizes base units to identify environmental impact factors, recognize laws and regulations and convert these regulatory requirements into actionable practices on a regular basis. All-round analysis, forecast and evaluation are made for the potential environmental impacts of new projects. CR Bldg Materials Tech follows environmental protection procedures and certification compliance management requirements for the ongoing projects. Prior to the construction of projects, CR Bldg Materials Tech prepares environmental impact reports and reporting forms or fills in environmental impact registration forms with reference to the lists of ecological and environmental authorities. Experts are invited to review and improve EIA documents. Construction work starts upon review and approval of competent authorities according to the law, avoiding environmental violations or lawbreaking behaviors in construction and operation of CR Bldg Materials Tech.

CR Bldg Materials Tech mobilizes base units to identify environmental impact factors, recognize laws and regulations and convert these regulatory requirements into actionable practices on a regular basis. Expert teams conduct comprehensive ecological and environmental risk grades for subordinate bases (Grade A, B, and C), while enhanced supervision is applied for Grade B/C enterprises. In 2024, CR Bldg Materials Tech successively received the central government inspections on ecological and environmental protection, special remediation for ecological and environmental protection of the Yangtze and Yellow River Basin, detected and rectified problems related to compliance of automatic pollution source monitoring and compliance of energy saving and ecological protection qualification certificates and formalities. Critical problems, detected in these inspections, were selected for urged resolution to ensure closed-loop rectification.

Pursuant to relevant laws and regulations, CR Bldg Materials Tech compiles and issues *Comprehensive Response Plan for Environmental Emergencies*. Subordinates are required to formulate specific emergency response plans in light of management reality as appropriate. CR Bldg Materials Tech closely engages with governmental bodies and competent authorities, and minimizes the hazards arising from environmental emergencies. No environmental accidents occur during the reporting period.



Building green factories

By the end of 2024

22 production bases had been inscribed on the lists of green factories at provincial (autonomous region) level and national levels



[Scan the QR code for reading]
Exploring Green and Low-carbon Development Path of Cement Industry—Practice Case on Green and Low-carbon Benchmarking Plant of Tianyang Cement

CR Bldg Materials Tech actively spurs the building of green factories, vigorously develops clean production technology, takes multiple measures around energy utilization indicators, pollutant generation indicators, waste recycling indicators and product indicators, and achieves energy saving, emission reduction and comprehensive utilization for "Reduction, Recycling and Non-hazardous Disposal of Solid Waste" under a trilogy of source reduction, process control and end treatment measures. By the end of 2024, 22 production bases had been inscribed on the lists of green factories at provincial (autonomous region) level and national levels. Among them, Practice Case on Green and Low-carbon Benchmarking Factory of Tianyang Industrial Park was featured in the *2023 Selected Excellent Practice Cases of Green and Low-carbon Development of Chinese Central SOEs*.

中央企业
绿色低碳优秀实践案例集

Case Collection: Excellent Practices of Green and Low Carbon Development of China's Centrally-Administered SOEs

国务院国有资产监督管理委员会 编写
State-owned Assets Supervision and Administration Commission of the State Council

探索水泥行业绿色低碳发展路径
——华润水泥绿色低碳标杆工厂实践案例

一、背景情况

我国自 2020 年宣布双碳目标以来，构建完成了碳达峰碳中和“1+N”政策体系，双碳工作不断深入。作为我国国民经济发展重要基础原材料的水泥行业，二氧化碳排放量约占建材工业的 80%，占全国碳排放总量比重超过 10%，成为我国碳排放的重点领域。如何突破瓶颈技术，降低碳排放水平，推动水泥行业绿色低碳转型发展，对实现双碳目标具有重要意义。

华润水泥（田阳）有限公司（以下简称田阳水泥）对水泥生产开展了全过程碳排放源分析和系统性研究，将各个环节的源头减碳、过程减碳以及末端去碳，创新提出了“3C 碳中和理论”。在此理论指导下，田阳水泥先后开展了探索社会资源协同处置及建设光伏发电源头减碳、智能制造推动过程减碳、太空生物科技末端去碳等创新实践，为水泥行业企业实现绿色低碳转型发展树立了示范标杆。其中，生活垃圾协同处置在役，已实现“五联材料协同”第 10 余家工厂，形成年度生活垃圾约 160 万吨的能力，有效

Case of Tianyang Cement, a subsidiary of CR Bldg Materials Tech, was included in *Selected Excellent Practice Cases of Green and Low-carbon Development of Chinese Central SOEs*



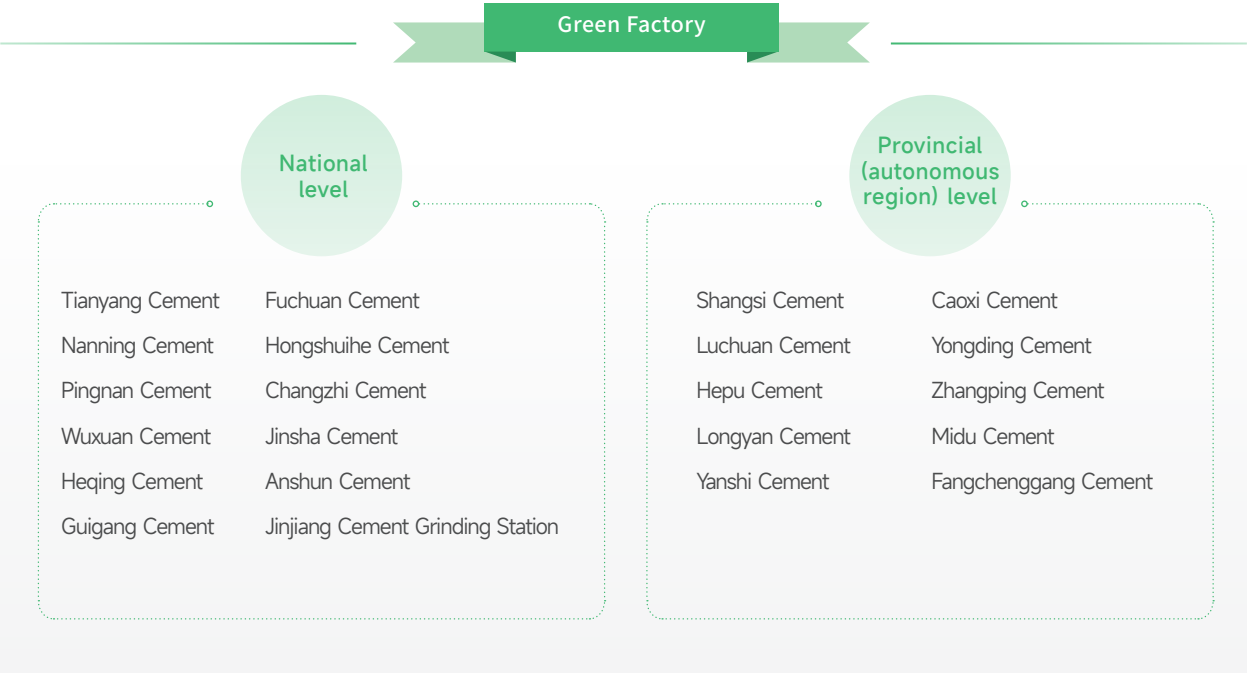
Panorama of the Green and Low-carbon Benchmarking Factory at Tianyang Industrial Park

CR Bldg Materials Tech greeted a new Green Factory in 2024

On December 16, 2024, the Ministry of Industry and Information Technology announced the 2024 Green Manufacturing List. Jinjiang Cement Grinding Station of China Resources Cement (Changjiang) Co., Ltd. was successfully recognized as a national-level Green Factory due to innovative practices for environmental governance, energy saving, emission reduction and utilization of new energy sources.



Jinjiang Cement Grinding Station at Changjiang Industry Park



Insisting on green operation

Green procurement

CR Bldg Materials Tech gives full considerations to environmental protection, resource conservation and other factors, and further promotes energy saving and emission reduction through selective preference to coal type. By introducing low-sulfur coal and high-caloric bituminous coal with stable quality, reliable supply and excellent cost-effectiveness, CR Bldg Materials Tech significantly reduces standard coal consumption, power consumption, clinker cost per ton and other key indicators, while sharply increasing clinker output and distinctly alleviating kiln system coating. CR Bldg Materials Tech propels the remanufacturing of large components, such as engine cylinder heads and crankshafts for construction machinery. In 2024, CR Bldg Materials Tech procured over 100 remanufactured parts and reduced carbon dioxide emissions by 30 tons (equivalent to planting 600 trees).



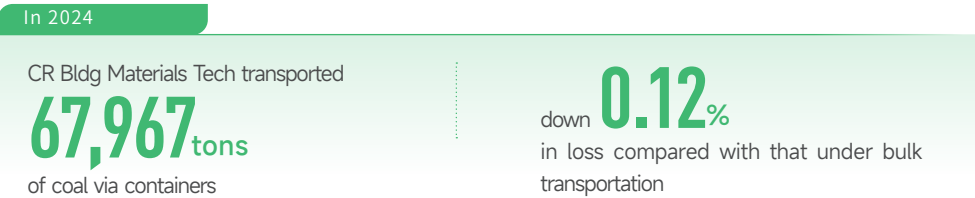
Green warehousing

Through reasonable planning and scientific layout, CR Bldg Materials Tech accurately selects transit ports with broad coverage and proximity to demand centers, and continuously enhanced the recovery of residual coal, including scattered coal, settling pond coal and abandoned sample coal at transit ports. In 2024, CR Bldg Materials Tech cumulatively recovered residual coal 227 times, totaling 9,975 tons. Coal stockpiled at ports was covered with tarpaulins, effectively reducing coal loss and dust generation in transit process and mitigating atmospheric pollution.



Green transportation

CR Bldg Materials Tech persistently applies green transportation modes on an extensive scale, undertakes coal container transportation business in collaboration with strategic suppliers, and minimizes repetitive loading and unloading, thereby reducing dust pollution and cargo loss. CR Bldg Materials Tech spreads the use of "ton bag" transportation and "two-way logistics", explores and pilots new energy logistics, and raises cyclic utilization rate of chains and nodes along the transportation process, reducing transportation capacity consumption and carbon emissions associated with cement transportation. In 2024, CR Bldg Materials Tech transported 67,967 tons of coal via containers, down 0.12% in loss compared with that under bulk transportation. Production bases actively brought in new energy transportation vehicles, electric mining vehicles and electric forklifts, effectively reducing transportation pollution and lowering transportation cost.



Electric unmanned mining trucks at Hezhou Industry Park

Advocating green office practices



Document on anti-food waste campaigns

CR Bldg Materials Tech actively calls for such green office practices as double-sided and black-and-white printing, and encourages the use of recycled paper. Paperless office system has been introduced, enabling meeting materials to be accessed via conference tablet computers. Contracts, statements, invoices and other documents are processed online through e-commerce platform, ERP, BI and other information systems, representing entire paperless workflow. The use of disposable products is minimized. By installing direct drinking water dispensers, CR Bldg Materials Tech reduces barrelled water and bottled water consumption by approximately 80%. Energy-efficient lighting systems are employed to maximize the use of natural light. CR Bldg Materials Tech launches the regular anti-food waste publicity and education campaigns, guides employees to develop reasonable dietary habits and obey table manners, and actively joins Clean Plate Campaign.



Paperless Office System

Environmental public welfare, publicity and education

CR Bldg Materials Tech actively carries out thematic environmental protection activities, including World Environment Day, National Energy Saving Publicity Week and National Low Carbon Day. Professional environmental training programs are implemented, cultivating awareness of environmental protection, low-carbon development and green growth, and fostering an underlying societal trend for "comprehensively promoting the building of a beautiful China".

CR Bldg Materials Tech supports and participates in Inheriting Environmental-friendly Planter Action

Zhangping Cement conducts World Environment Day Publicity activity

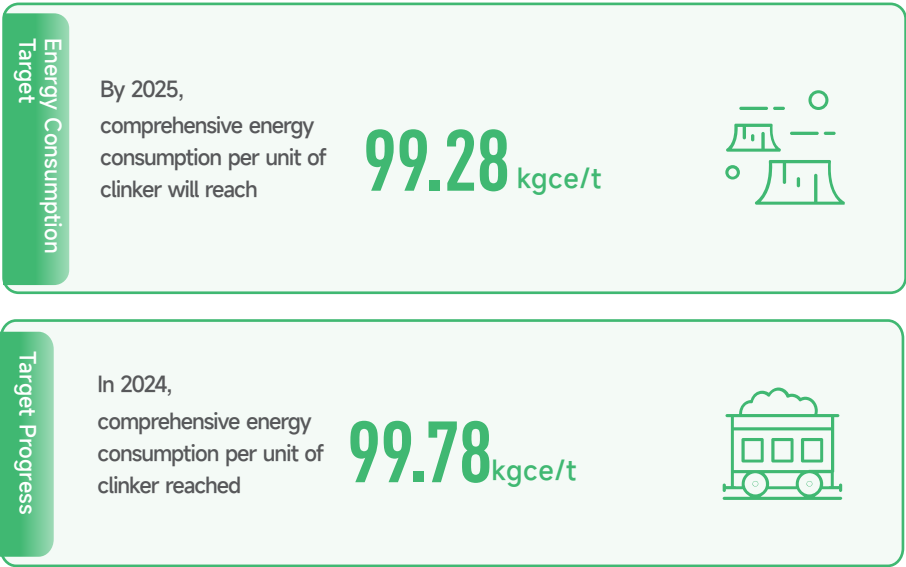
Nanning Cement conducts special training on ecological and environmental protection

Ding'an Runfeng Mining conducts thematic activity of "comprehensively promoting the building of a beautiful China"

Integrating Energy Resources

Optimizing energy management

Energy management system



CR Bldg Materials Tech develops and strictly enforces the *Guidelines for EHS Supervision and Management of China Resources Building Materials Technology Holdings Limited (2023)* and establishes energy management system in line with ISO 50001:2018. Enabled by digital and intelligent technologies, CR Bldg Materials Tech makes progress in promotion and application of new technologies, new equipment, new materials and innovative achievements in the fields of energy saving and environmental protection, makes statistics, evaluates, analyzes and optimizes energy and resources consumption in the whole process, further improving efficiency of comprehensive utilization of energy and resources. By the end of 2024, all cement bases passed ISO 50001:2018 Energy Management System Certification.

Energy saving and carbon reduction practices

CR Bldg Materials Tech actively echoes with the national strategy of carbon peaking and carbon neutrality, puts 3C Carbon Neutrality Theory into practice, explores feasible pathways and continuously promotes technological transformations for energy saving and carbon reduction. Devoting to research and application of photovoltaic power generation, alternative fuel, waste heat power generation and other technologies, CR Bldg Materials Tech effectively reduces fossil energy consumption and optimizes energy mix.



Dongguan Global Classic New Materials Co., Ltd. wins the honorable title of National Energy-Saving and Low-carbon Innovation Demonstration Enterprise in the Construction Field

By the end of 2024

1.0235 million tons

of alternative fuels were utilized,

up 47.12%

year on year,

along with coal replacement rate of

7.91%

standard coal consumption saving by

407,500 tons

and carbon dioxide emission reduction by

1.1369 million tons

Promoting alternative fuel applications

CR Bldg Materials Tech continuously diversifies alternative fuel supply channels and types, and drives the innovations in alternative fuel technology routes. Alternative fuel projects of Yangchun Cement, Luchuan Cement, Shangsi Cement and other subsidiaries have been successively completed and put into operation, substantially raising the substitution rate of alternative fuels.

Technological transformations for energy saving and carbon reduction

In 2024, CR Bldg Materials Tech invested RMB 4.71 million in equipment upgrades and energy-saving transformations. It successfully promoted the application of one large energy-efficient centrifugal fan, seven energy-efficient air compressors, five energy-saving blowers and 88 energy-saving motors, further phased out high-energy-consuming mechanical and electrical equipment, and made energy-using equipment more energy-efficient, saving electricity by approximately 3.4962 GWh or electricity cost by about RMB 1.7481 million every year.

Photovoltaic power generation

In 2024, photovoltaic power generation projects were commissioned at Lianjiang Industry Park, Hepu Cement and other subsidiaries, adding new installed photovoltaic capacity by 64 MW and realizing 2025 target of 150 MW ahead of schedule. Annual cumulative electricity generation reached 103 GWh. All cement bases, located in Guangdong and Guangxi, were equipped with photovoltaic installations.

Waste heat power generation

Pure-low-temperature waste heat power generation system has been fully employed in cement clinker production bases, effectively recovering waste heat from production and converting it into electric energy. In 2024, CR Bldg Materials Tech saw waste heat recovery power generation of 1,487.51 GWh.



Alternative Fuel Project of Yangchun Cement



Photovoltaic Power Generation Project of Zhujiang Cement

Integrated resource management

Fine water resource management

In 2024, wastewater resource utilization rate reached

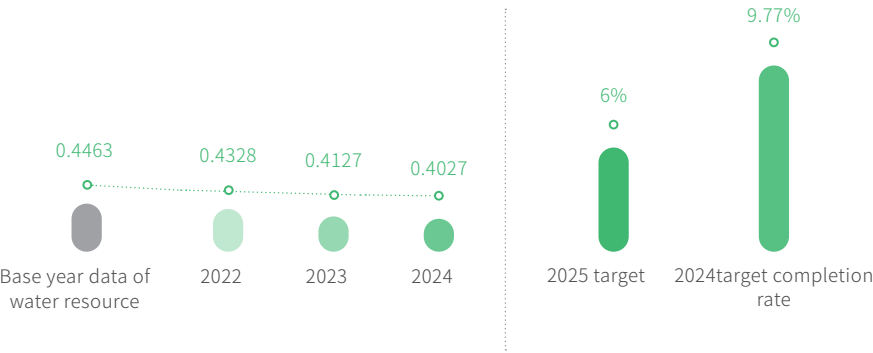
96.34%

In accordance with the *Guidelines on Water Pollution Prevention and Control Management*, CR Bldg Materials Tech requires all production bases to design the combined water supply and use systems tailored to their specific characteristics, and advocates water conservation and recycling. CR Bldg Materials Tech prepares complete waterpipe network diagrams and water balance charts, establishes water metering and statistical ledgers, and conducts statistic analysis for water use situations. Advanced sewage treatment facilities are available for source water, domestic sewage and production wastewater, while treated wastewater is reused for greening and production processes. In 2024, wastewater resource utilization rate reached 96.34%, aligning with industry-recognized standards in China.

CR Bldg Materials Tech complies with relevant national and local standards for water intake quotas, applies for water intake licenses from water administrators or river basin authorities to take in and use water, pays water resource fees as required, and secures the rights to take in water from rivers, lakes or underground sources. In 2024, no problem occurred in access to applicable water sources.

Water efficiency target

By 2025, annual water resource use intensity (water consumption per ton/clinker per ton) will decrease by **6%** compared with that in 2020.



Resource recycling

In 2024, comprehensively utilized

580,000 tons

of industrial solid waste, including converter slag tailings, tail slag, coal cinder and coal-burning furnace slag

CR Bldg Materials Tech establishes whole-process resource recycling system. Under the principle of scientific allocation, comprehensive conservation and recycling, CR Bldg Materials Tech constantly promotes total resource management, maximizes resource reuse, and minimizes environmental impact. In 2024, Changzhi Industry Park actively developed and utilized industrial waste slag as a substitute for natural resources and used 54,000 tons of wet fly ash, effectively minimizing slag use and significantly reducing coal consumption. Field survey, development and trial were made for high-silicon tailings, furfural slag and other types of industrial waste slag, effectively changing local industrial waste slag into valuable resources. Production bases in Yangchun, Lianjiang, Huizhou and Luoding comprehensively utilized 580,000 tons of industrial solid waste, including converter slag tailings, tail slag, coal cinder and coal-burning furnace slag.

Reducing Pollutant Emissions

CR Bldg Materials Tech places significant emphasis on pollutant emission management and has taken stringent control measures for various types of pollutants, including establishment and improvement of emission supervision system, disclosure of emission information, and introduction of advanced emission reduction technologies, such as Selective Catalytic Reduction (SCR) and high-efficiency Selective Non-Catalytic Reduction (SNCR). All cement production bases obtain pollutant emission permits and obey permit requirements. All cement clinker production bases are equipped with denitration systems and bag dust collectors to achieve emission levels far below the local and national standards.

Exhaust gas emission

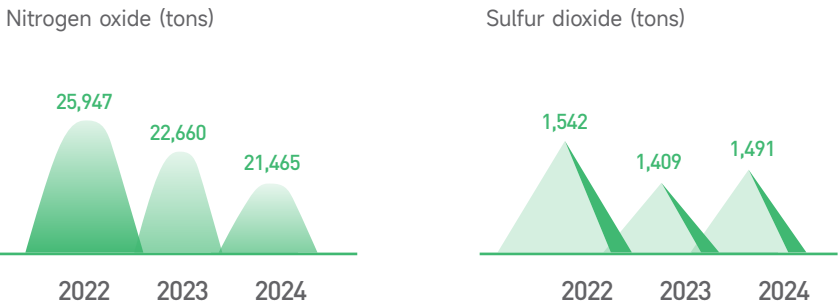
Nitrogen oxide emission reduction

CR Bldg Materials Tech keeps promoting the use of intelligent and efficient selective non-catalytic reduction (HeSNCR) denitrification technology. Technological transformation projects, designed for ultra-low nitrogen oxide emissions from production lines, have been completed for a total of 8 production lines in Nanning, Changzhi, Fengkai (Lines 1-4), Anshun, and Liangtian. Simultaneously, SCR technological transformation projects, designed for ultra-low nitrogen oxide emissions from two production lines, are under way in Huizhou and Yongding.

In view of major exhaust gas pollutants, including particulate matter, sulfur dioxide and nitrogen oxide in the production and operation process, CR Bldg Materials Tech sets emission targets of year 2024, namely, reducing emissions of particulate matter, sulfur dioxide and nitrogen oxide by 3%, 3%, and 10% compared with those in 2020, respectively. Furthermore, by 2025, all cement production lines must secure the emission concentrations of nitrogen oxide, sulfur dioxide and particulate matter below 100 mg/m³, 50 mg/m³, and 10 mg/m³, respectively.

CR Bldg Materials Tech actively conducts research on ultra-low emission technology, introduces advanced emission reduction technology and equipment, and efficiently improves waste gas treatment capacity through multiple measures.

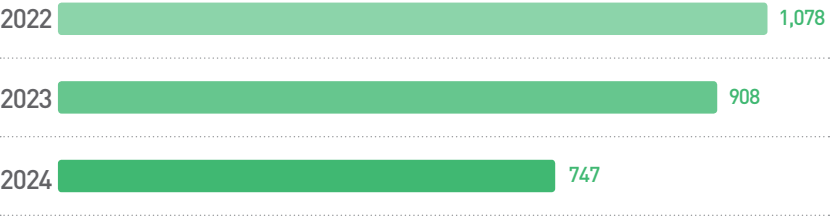
The total emissions of nitrogen oxide, sulfur dioxide, particulate matter and other pollutants from the main emission outlets of cement production bases are shown as follows:



Sulfur dioxide emission reduction

By the end of 2024, CR Bldg Materials Tech built four wet desulfurization systems and eleven compound desulfurization systems, achieving remarkable sulfur dioxide emission reduction effects.

Particulate matter (tons)



In 2024, CR Bldg Materials Tech outperformed its annual pollutant emission targets, reducing emissions of particulate matter, sulfur dioxide and nitrogen oxide by 57.94%, 9.14%, and 40.72%, compared with those in 2020, respectively.

Wastewater discharge

By the end of 2024 zero-discharge wastewater projects were completed at all 36 cement plants and cement grinding stations

CR Bldg Materials Tech strictly abides by the *Law of the People's Republic of China on Water Pollution Prevention and Control* and other relevant laws and regulations, stringently controls wastewater and sewage discharge, constantly implements comprehensive sewage treatment projects, and formulates strict sewage treatment procedures and indicators with reference to the national grade-A discharge standards. Under the principle of classified collection, quality-based treatment and segmented reuse, industrial wastewater, domestic sewage and initial rainwater are treated. Thanks to scientifically designed pipe networks and processes, such as coagulation, sedimentation, sand filtration and membrane treatment, diversion of rain and sewage water comes true within the factory area, while all treated domestic sewage and industrial wastewater meet standards and are reused within the factory area, ultimately realizing zero wastewater discharge. By the end of 2024, zero-discharge wastewater projects were completed at all 36 cement plants and cement grinding stations.



Zero-discharge Wastewater Project of Midu Cement

Waste emission

In 2024 CR Bldg Materials Tech treated a total of 465.8644 tons of hazardous waste, with an additional inventory of 47.6659 tons with disposal rate of 100%

CR Bldg Materials Tech strictly abides by the *Law of the People's Republic of China on Prevention and Control of Environmental Pollution by Solid Waste* and other relevant laws and regulations, takes effective measures to ensure the safe and efficient disposal of hazardous waste, promotes the high-efficiency recycling of non-hazardous waste, and alleviates environmental burden caused by waste.

Hazardous waste

CR Bldg Materials Tech fully recycles waste oil from the manufacturing process to minimize the generation volume of hazardous waste. For other types of hazardous waste, such as waste oil drums, CR Bldg Materials Tech either makes them recovered by the original manufacturers or entrusts qualified third parties to process in accordance with the national laws and regulations.

Non-hazardous waste

In addition to procuring and utilizing large quantities of industrial waste annually, CR Bldg Materials Tech takes effective measures in its production and operation, such as dust collection and application, plastic and paper recycling, to recycle non-hazardous waste. In 2024, CR Bldg Materials Tech generated 90,631 tons of non-hazardous waste, of which 89,433 tons were treated, with treatment rate of approximately 97%. (The untreated non-hazardous waste was generated at year end and stored, pending for entire treatment in the following year).

Collaborative disposal

Leveraging technological advantages, CR Bldg Materials Tech constantly innovates kiln collaborative disposal technology and continuously refines solid waste disposal solutions. Through cement kiln collaborative disposal of solid waste, CR Bldg Materials Tech effectively utilizes combustibles in solid waste for energy saving and carbon reduction, removes such toxic pollutants as dioxins through high-temperature incineration in cement kilns, and uses the incineration residues as raw materials for cement clinker production. This approach achieves "reduction, recycling and non-hazardous" disposal of solid waste, completely saying goodbye to secondary pollution.

By the end of 2024, CR Bldg Materials Tech had a total of 11 collaborative disposal projects, as shown in the following table:

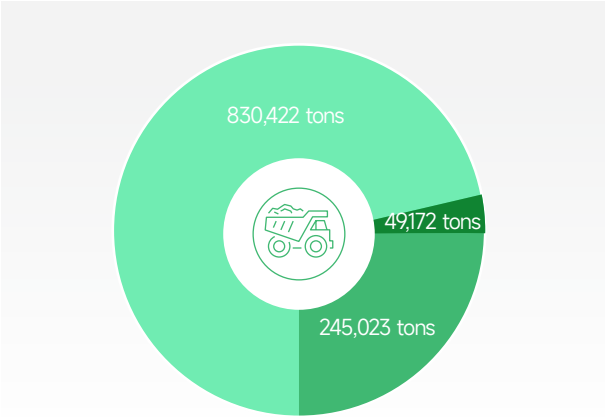
Item	Type	Annual treatment capacity (tons)	Status
Binyang, Guangxi	Urban and rural domestic waste	110,000	In operation
Tianyang, Guangxi	Urban and rural domestic waste	180,000	In operation
Fengqing, Yunnan ¹	Urban and rural domestic waste	110,000	In operation
Midu, Yunnan	Urban and rural domestic waste	110,000	In operation
Hepu, Guangxi	Urban and rural domestic waste	160,000	In operation
Nanning, Guangxi	Municipal sludge ²	110,000	In operation
Zhushui, Guangzhou ¹	Municipal sludge ²	300,000	In operation
Yuebao, Guangzhou ¹	Municipal sludge ²	560,000	In operation
Changjiang, Hainan	Industrial hazardous waste	30,000	In operation
Shangsi, Guangx ³	Industrial hazardous waste	100,000	In operation
Yanshi, Fujian ³	Industrial hazardous waste	80,000	In operation

Notes:

- 1. It is located in one of cement production bases of associates and joint ventures.
- 2. Nanning Cement Project is intended to dispose of wet sludge with water content of 80%; Zhushui Cement Project and Yuebao Cement Project are intended to dispose of dry sludge with water content of less than 40%.
- 3. It is a collaborative disposal project developed by CR Bldg Materials Tech in cooperation with external environmental protection companies.

Collaborative disposal volume of CR Bldg Materials Tech, associates and joint ventures in 2024:

- Urban and rural domestic waste
- Municipal sludge (water content of 80%)
- Industrial hazardous waste



Protecting Ecological Environment

CR Bldg Materials Tech consistently abides by the *Law of the People's Republic of China on Mineral Resources*, the *Law of the People's Republic of China on Environmental Protection*, the *Specification for the Construction of Cement Limestone Green Mines* and other laws, regulations and industry norms. CR Bldg Materials Tech stringently follows the principle of "whoever exploits a mine is responsible for properly governing and ensuring concurrent mining and governance" to construct green mines in both newly developed and operational sites in an orderly and all-round way. Furthermore, CR Bldg Materials Tech prioritizes the protection of ecological environment at raw material extraction sites and mitigation of the adverse effects of extraction activities on biodiversity as a critical component of ecological civilization strategy. Efforts are also directed toward minimizing the environmental impact of business operations, including vegetation destruction around mining areas caused by raw material extraction, air pollutant emissions from clinker calcination, among others.

CR Bldg Materials Tech erects an impregnable environmental protection defense line in all aspects, circumvents ecologically sensitive areas prior to extraction activities, actively promotes vegetation transplantation and ecological restoration in the extraction process, spares no effort for research, development and application of energy saving and emission reduction technologies, and adopts innovative moves (such as clean energy utilization). CR Bldg Materials Tech strictly implements the system requirements for geological environment protection in mining areas, preparation, organization and acceptance of land reclamation plans, ensuring implementation of ecological restoration in mining areas in synergy with pollution prevention and control, soil and water conservation, vegetation restoration and other aspects. CR Bldg Materials Tech takes advantage of controlled blasting and other advanced mining technologies, avoids the potential slope rock fall from the source, effectively preserves natural features of mountains, mitigates energy release from seismic wave and shock wave, lowers noise decibels, and minimizes interference and damage to the surrounding ecosystem. Energy-efficient dust collection equipment is deployed for real-time dust collection in the ore crushing and screening processes, complemented by water spray and misting facilities for dust removal operations. In this way, CR Bldg Materials Tech consistently maintains refreshing and clean environment within mining areas and their surroundings.

In 2024, CR Bldg Materials Tech added greening area by about **300,000** square meters and **7** provincial-level (autonomous region level) green mines. By the end of 2024, the cumulative greening area reached **4.1** million square meters, and **23** provincial-level (autonomous region level) green mines were built, including **9** national-level green mines.



Shilingtou Limestone Mine of Fuchuan Cement



Shilingtou Limestone Mine of Fuchuan Cement was awarded Top Ten Mines of 2024 by China Cement Association



Green mines contribute to facilitating the modernization of harmonious coexistence between man and nature

In March 2024, three bases affiliated to Southeast China Region of CR Bldg Materials Tech—Caoxi Cement, Yongding Cement and Longyan Cement—were successfully included in the 2024 List of Green Mines in Fujian Province. Concurrently, Large Mine of Zhaoqing Runxin New Materials achieved outstanding results in the on-site evaluation and acceptance of green mine construction in Guangdong Province, further stipulating CR Bldg Materials Tech to write new chapters on green mine construction.



Green mine of Caoxi Cement



Green mine of Yongding Cement

Responding to Climate Change

Climate-related governance

To actively respond to climate change, the Risk and Compliance Committee under the Board of Directors of CR Bldg Materials Tech is responsible for guiding and monitoring ESG-related risks and opportunities with significant impact on business operations and ensuring that appropriate response measures are taken by executives. Additionally, the Risk and Compliance Committee oversees the corporate commitments and performance on such key topics as response to climate change, environmental protection and compliance management, and holds regular internal training sessions, including seminars and material reviews, for directors. In August 2024, CR Bldg Materials Tech conducted director training aligned with guidelines of the Hong Kong Stock Exchange for optimizing climate-related information disclosure under ESG framework. Details of the directors' participation in training are documented in the *Corporate Governance Report in Annual Report 2024*.

Every year, the Board of Directors of CR Bldg Materials Tech evaluates and makes clear ESG risks and opportunities (including response to climate change, environmental protection and compliance management), gives considerations to these risks and opportunities under the overarching strategic planning, and supervises issue management and performance accordingly. Based on the defined responsibilities, quantitative indicators, such as carbon emissions, are incorporated into the performance appraisal system. The Remuneration and Appraisal Committee under the Board of Directors and senior management evaluate business performance and set forth recommendations for remuneration distribution. The Risk and Compliance Committee under the Board of Directors regularly reviews progress toward management objectives and proposes improvement measures.

Climate-related strategies

Business model and value chain

Business model adjustment

Climate change motivates CR Bldg Materials Tech to develop low-carbon cement products at a faster pace. In 2024, CR Bldg Materials Tech actively made progress in research and development in new products and technologies, completed development and engineering application of rotary kiln technology and equipment at Guangxi Hepu Cement Base, and promoted the application of raw material roller press and energy saving carbon reduction technology in cement grinding processes. By advocating industry self-discipline and fighting against involution, CR Bldg Materials Tech decreased resource wasting and transportation emissions caused by cutthroat market competition.

Climate change adaptation and mitigation

CR Bldg Materials Tech evaluates the threats posed by extreme weather events (e.g., flood and heatwave) to production facilities, and develops emergency response plans accordingly. CR Bldg Materials Tech also utilizes alternative fuels to decrease carbon emissions from clinker production, and drives the research and application of carbon capture, utilization, and storage (CCUS) technology.

transformation plan

In response to the *Measures for Implementation of Capacity Replacement in Cement and Glass Industries (2024)*, CR Bldg Materials Tech takes corresponding measures, probes into systematic competitiveness, optimizes and phases out those bases with weak competitiveness and long-run loss, and adjusts internal indicators in line with the requirements of the national carbon peaking and carbon neutrality policies.

Climate-related risk management

Based on the corporate risk prevention mechanism, CR Bldg Materials Tech embeds climate risk into the existing risk management process:

Climate Risk Assessment

CR Bldg Materials Tech adopts Task Force on Climate-related Financial Disclosures (TCFD) Framework. With reference to the entire lifecycle of cement production, CR Bldg Materials Tech evaluates the probability of impacts of extreme high temperature on furnace thermal efficiency and heavy rainfall on mining operation. CR Bldg Materials Tech applies mining geology monitoring system to dynamically assess the risk levels of soil erosion in mining areas, and formulates *Response Plan for Production under Extreme Weather*.

Climate opportunity identification mechanism

CR Bldg Materials Tech initiates dedicated fund for low-carbon technologies, achieves efficient and cost-effective carbon dioxide capture in low-concentration coal-fired flue gas through CCUS pilots and demonstration projects, and evaluates commercial viability of industrial carbon dioxide capture. CR Bldg Materials Tech sets up a database of alternative fuels, and prefers fuels with high biomass energy content in the procurement.

Governance architecture control

The Risk and Compliance Committee under the Board of Directors, regularly reviews the progress in climate-related risk management.

05

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03

04

Continuous monitoring

CR Bldg Materials Tech arranges for sensors to monitor the carbon emission intensity per unit product across all production lines in real time, and sets Key Performance Indicators (KPIs) for quarterly emission reduction aligned with the 2030 Target of Global Cement and Concrete Association. CR Bldg Materials Tech strengthens stakeholder engagement, signs green transportation agreements with logistics providers, requests carrier fleets to submit transition plans for replacing with new energy vehicles, and incorporates relevant penalty clauses into transportation contracts.

Priority judgement

CR Bldg Materials Tech conducts hierarchic management according to *Impact Degree of Climate Risk—Occurrence Frequency Matrix*, and prioritizes calcination technologies with high maturity.

Identification of climate change risk and response measures

Main risks	Climate change risks	Response measures
Policy and legal risks	- As emissions peaking and carbon neutrality goals progressively bear fruit, national policies and requirements are becoming increasingly stringent. For example, in key regions for air pollution prevention and control, the addition of production capacity is strictly prohibited in six key industries, including cement industry; - Cement industry will be formally incorporated into the national carbon market compliance system by 2025, and carbon emission indicators of enterprises will be strictly restrained; - More stringent standards are raised in such processes as carbon emission monitoring, reporting and verification (MRV), implying increased risk of non-compliance; - Work safety requirements for non-coal mines are heightened; - Illegal sand mining activities are severely investigated and punished; - Ecological and environmental protection constraints are imposed on project development, leading to higher compliance costs for the enterprises.	- Proactively engage with local policy-making authorities to learn and understand the content and direction of policies, identify potential risk points, and reduce risks through standardized management; - Conduct research to establish and continuously refine medium- and long-term targets for carbon emissions, precisely set phased and feasible emission reduction targets and detailed action plans, supplemented with strict supervision and assessment mechanisms; - Establish and improve special carbon emission management system, define responsibilities and tasks for carbon emission management work, and work out detailed procedures for carbon emission data collection, accounting and reporting; - Spearhead the construction of intelligent mines, and step up work safety and standardized operation of mines, riverways and other places.
	- By 2025, the proportion of clinker production capacity above industry-wide energy efficiency benchmark will reach 30%, the production capacity of clinker below energy efficiency baseline will be essentially eliminated, while the comprehensive energy consumption per unit product of cement clinker is expected to decrease by more than 3%; - Uncertainties exist in mechanism for capturing and allocating carbon quota, while insufficient carbon quota may lead to increased production costs, which will be ever-increasingly demanding for carbon asset management; - The low-carbon technology competition is becoming increasingly fierce in the industry. Due to backward technological innovation, it would be difficult to realize individual emission reduction targets and gradually fall behind in the market competition; - Increased carbon footprint is caused by insufficient coverage of new energy trucks.	- Reduce greenhouse gas emissions by upgrading processes and reducing energy consumption, carry out technological research and development of alternative raw materials, alternative fuels, carbon dioxide capture and low-carbon products, and actively prepare for the inclusion of cement industry into the national carbon market; - Jointly establish CR Carbon Neutrality Research Institute together with CR Power and CR Learning and Innovation Center, make scientific research, development, planning and investment, step up energy storage technology applications, tackle key technological challenges, and promote research and application of carbon capture, utilization, and storage (CCUS) technology.
Extreme weather risks	- Increased frequency of extreme weather events, such as heavy rainfall, flood and typhoon, may lead to operational disruptions or even damage production and operating facilities, resulting in reduced capacity. Such events may also trigger secondary disasters, pose threats to personal safety, environmental pollution, and challenge the corporate asset safety and work safety; - The number of summer days with the average daily temperature above 35 °C increases in the main operating regions, which may lead to the higher failure rate of mining machinery and the poorer efficiency of employees' outdoor work.	- Analyze the impacts of extreme weather (e.g., heavy rainfall and heatwave) on mine safety and kiln operation efficiency, and quantify the daily losses caused by logistics disruptions during typhoon; - Coordinate disaster prevention and mitigation efforts, identify safety hazards in key areas, make disaster relief materials in place, formulate emergency plans, and regularly organize disaster safety drills to enhance employees' awareness and response capabilities; - Reasonable use of commercial insurance and other measures to reduce potential personal injuries and property losses caused by disasters and accidents of all kinds; - Constantly expand procurement channels, and keep abreast of power supply and coal supply situations in operating regions to secure an adequate supply; - Arrange for shipments in view of weather conditions, immediately halt deliveries during extreme weather, safely evacuate personnel from transit warehouse, fasten loading/unloading equipment, and notify customers in advance; - Assist retail customers in goods storage and relocation.
	- Changes in rainfall patterns and weather extremes may increase construction costs for the company, and result in project delay, equipment damage, and other problems; - Intense precipitation and elevated sea levels may result in inundation, damage to buildings, equipment and facilities of production bases, resulting in impairment of assets, increase in maintenance expenditures, and higher insurance premiums for equipment and personnel; - Rising or falling average temperatures may raise operating costs, along with increased demands for cooling water for equipment and heating/cooling for office spaces.	- Encourage subordinate bases to identify climate vulnerabilities in their respective regions; - Optimize energy saving and environmental protection facilities, improve energy and water efficiency, and rely less on natural resources; - Initiate educational programs for employees on climate change to disseminate knowledge about climate change.

Identification of opportunities presented by climate change and strategic measures

Opportunities presented by climate change	Strategic measures
The Chinese Government actively promotes the construction of green factories and green mines, and setting forth ever-increasingly high environmental requirements for cement industry.	Constantly boost energy saving and emission reduction, improve production and operation efficiency, advance the comprehensive utilization of resources, reduce long-term operational costs, and further sharpen competitive edge in the industry.
The Chinese Government actively promotes the building of national carbon emission trading market.	Stay abreast of the latest national policies, engage in carbon asset management in due time, and leverage market mechanisms to help the enterprises maintain and increase the value of carbon assets.
As the Chinese Government boosts development of green buildings, customers will raise more demands for low-carbon cement, green building materials, products and services.	Plan to conduct research, development of low-carbon cement and high carbon-capture concrete technology; supply reliable and stable green building materials in echo with customers' personalized needs; constantly promote the low-carbon certification of cement and clinker products; develop more environmentally friendly and energy-saving inorganic artificial stone products.
The Chinese Government pushes forward development of green buildings, and encourages to recycle construction waste as resource and improve city environment.	Vigorously promote green building materials, establish autoclaved aerated concrete block and panel production line, and support the construction industry to innovate energy saving, emission reduction and construction modes; develop construction waste disposal site project in Changjiang, Hainan, helping build Zero-Waste Cities, reducing the consumption of natural resources, and pushing forward green development of the industry.

Climate-related financial impacts

Climate risks and opportunities	Low-carbon circular production
Transition risks	1. Carbon trading/carbon fee/carbon tax for carbon emission cap 2. Cost input for low carbon technology, equipment and management 3. Rising prices of raw materials and energy 4. ESG performance has an impact on the related linked financing cost
Physical risks	1. Damage to direct asset values is caused by extreme weather and natural disasters 2. Climatic conditions affect raw material collection, product production and processing, and logistics sales 3. Extreme weather affects the safety and health of employees in the working environment
Opportunities	1. Smart low-carbon production and collaborative waste disposal 2. Access to financing channels for sustainable development 3. Participation in carbon trading markets 4. Expansion of low-carbon green product market 5. Reception of governmental incentives for energy consumption reduction

Current, short-term financial impacts (i.e., impacts on current-year financial statements):

- Cash outflow is generated from the exploration for technological transformations for energy saving and carbon reduction at subordinate bases.
- Cash outflow is generated due to expenditures on safety and health of employees in response to extreme weather and natural disasters.
- Positive cash flow is generated from the sales of low-carbon products.
- The increased utilization of alternative raw materials and fuels reduces production raw materials and coal usage, lowers operating cost, and contributes to generating positive cash flow.
- Waste heat power generation and photovoltaic power generation reduce electricity purchases, lower operating cost, and contribute to generating positive cash flow.

Projected medium- and long-term financial impacts (i.e., chronologically going beyond the impacts on current-year financial statements):

- The anticipated inclusion of the cement industry in the national carbon trading market may lead to higher operating cost, higher liability and cash outflow from operating activities. In view of this, CR Bldg Materials Tech has proactively made relevant preparations. By establishing a carbon working group to evaluate the impact of carbon market policies, benchmarking inside and outside the cement industry, analyzing carbon emission intensity and competitiveness across production lines and coordinating internal carbon emission indicators, CR Bldg Materials Tech takes multiple measures to address the challenges. In addition, this can effectively control overproduction through daily output limits anticipatedly imposed by the carbon market.
- Operating cost and expense go up due to research and development expense associated with continuous production and sales of low-carbon products, expense of third-party green and low-carbon label verification, expense of employee training, external advertising expenditure and the like, resulting in cash outflow.
- Vigorously promoting the use of alternative fuels reduces coal purchases, lowers operating cost, and contributes to generating positive cash flow.
- Due to the persistent waste heat power generation and photovoltaic power generation, full coverage of pure low-temperature waste heat power generation systems has been achieved at subordinate cement clinker production bases, helping reduce operating cost and generate positive cash flow.
- Sales of low-carbon products drive increases in operating revenue and generate positive cash flow.

Climate resilience

Type	Scenario assumption
Potential financial loss arising from no response to climate change risks	For instance, penalties resulting from non-compliance with emission standards, losses incurred due to operational shutdowns during extreme weather events, maintenance expenses arising from plant damage under extreme conditions, financial impacts caused by climate-related disruptions to raw material outsourcing, product manufacturing and sales, etc.
Annual expenditure for responding to climate change risks	For instance, expenditures associated with investments in energy saving and carbon reduction projects under stringent emission requirements, expenditures for enterprise optimization, upgrading, closedown, suspended operations, merge with others or switch to the manufacture of other products, expenses for plant weatherization and retrofitting, and expenditures associated with allowance for employees working in high-temperature environment.
Annual cost of taking advantage of climate change opportunities	For instance, expenditures for green technology research and development, costs for issuance of green bonds, costs for applications for national subsidies tied to energy saving and low carbon initiatives, etc.
Potential gain arising from climate change opportunities	For instance, revenues generated from collaborative disposal operations, revenues from sales of low-carbon cement, subsidy revenues from supportive policy incentives, incomes from low-cost financing tied to sustainable development objectives, etc.

Implementing carbon peaking and carbon neutrality strategies

CR Bldg Materials Tech actively responds to climate change and implements carbon peaking and carbon neutrality strategies. In 2021, CR Bldg Materials Tech fully initiated carbon emission control work and set forth the medium- and long-term planning goals for carbon emissions under the "14th Five-Year Plan", as well as action plans and strategic objectives for realizing carbon peaking and carbon neutrality goals.

Carbon management capacity building

CR Bldg Materials Tech continuously optimizes carbon emission management modes and systems, enhancing capability to manage and control carbon emissions. A dedicated carbon emission management steering group, headed by corporate leaders, is set up to coordinate carbon emission control efforts across the whole company. Operational Management Department is designated as the leading department for routine carbon emission management, and works closely with Strategy Management Department, EHS Department, Technology & Innovation Department and Finance Department to fulfill carbon emission management from multiple perspectives, including strategy, project implementation, technology research and development, etc. CR Bldg Materials Tech provides special training sessions and policy interpretations to strengthen the professional capabilities of carbon emission managers.

In 2024, CR Bldg Materials Tech analyzed the impacts of the national carbon market and the solutions, and compiled *Special Research Report on Carbon Trading in Cement Industry*. CR Bldg Materials Tech set up expert panels to conduct assisting inspections on carbon emission data management at Fengkai Cement and Changjiang Industry Park, and gave pertinent recommendations for improvement.

Exploration for carbon market

In 2024
these bases completed the 2023
carbon quota settlement with a
100%
completion rate

CR Bldg Materials Tech actively participates in the carbon trading market of cement industry. Since 2013 and 2016, it has been involved in pilot carbon markets in Guangdong and Fujian, respectively. CR Bldg Materials Tech conducts ongoing research on carbon asset management modes, analyzes the financial implications of carbon prices and quotas in conjunction with production plans, develops preemptive countermeasures, and flexibly adjusts production strategies accordingly.

Every year, twelve bases in Guangdong Province and five bases in Fujian Province complete carbon emission reporting, verification, and quota settlement as required. In 2024, these bases completed the 2023 carbon quota settlement with a 100% completion rate. According to *Management Measures of China Resources Building Materials Technology Holdings Limited for Emission Permit Trading*, CR Bldg Materials Tech clarifies carbon trading-related management responsibilities and processes. A tiered authorization mechanism has been established for trading personnel to handle single and cumulative trading volumes, with the specified trading limits. Moreover, *Carbon Emission Data Management Guidelines of China Resources Building Materials Technology Holdings Limited* have been issued to make clear access rules of basic data, accounting methods, management responsibilities of relevant departments of original ledgers, among others.

Case Study: Strategic collaboration for addressing carbon market challenges

On December 16, 2024, CR Bldg Materials Tech signed a strategic cooperation agreement with Guojian Lianxin Certification Center in Shenzhen. This collaboration focuses on development of carbon peaking and carbon neutrality standards, enhancement of carbon management capabilities, certification evaluation and other aspects, aimed to jointly address challenges posed by the inclusion of the cement industry in the national carbon market, and help CR Bldg Materials Tech realize carbon peaking and carbon neutrality goals.

Greenhouse gas emission

Carbon emission target
By 2025,
emission intensity per ton of
clinker will be reduced by
2%
compared with that in 2020.

Given that the majority of greenhouse gas emissions in the building materials industry originate from production process (accounting for approximately two-thirds of total emissions) and fossil fuel combustion accounts for about one-third of total emissions, emissions within GHG Protocol Scope 1 and Scope 2 are relatively low. Due to the dispersed and complicated emission sources from Scope 3 in the building materials industry, data collection remains challenging in the current stage. Therefore, GHG emissions within Scope 3 are temporarily excluded from the scope of statistics.

Every year, CR Bldg Materials Tech, based on ESG reports and other references from leading peer enterprises, conducts systematic and in-depth analyses of carbon emission intensity indicators, develops feasible improvement strategies, sets phased carbon emission intensity reduction targets, tracks and evaluates effectiveness of these targets annually, ensuring continuous optimization and improvement.

Carbon emission performance

In 2024,
for CR Bldg Materials Tech, direct greenhouse gas emissions (Scope 1) totaled

39,796,912.3 tons of CO_{2e}

indirect greenhouse gas emissions (Scope 2) totaled

550,216.7 tons of CO_{2e}

average coal consumption per ton of clinker decreased from **132.0 kg** in 2023 to **130.0 kg**
and standard coal consumption per ton of clinker decreased from an average of **98.2 kg** in 2023 to **97.2 kg**

carbon emission intensity dropped by
compared with that in 2020.

3.8%

carbon emission reduction reached

1,408 KT

Erecting a Firm Safety Defense Line

Work safety management system

In 2024
CR Bldg Materials Tech cumulatively
invested a total of **RMB**
325million
in safety management.

CR Bldg Materials Tech consistently puts life and health first, insists on green and high-quality development, and coordinates development with safety. Guided by people-oriented philosophy that "all accidents are preventable", CR Bldg Materials Tech follows the keynote of "13263" EHS Management System, makes continuous progress in work safety standardization and double prevention mechanism building, takes a three-year action to address the root causes of work safety problems, lays a solid grassroots foundation, and overcomes management weaknesses.

CR Bldg Materials Tech continuously reinforces primary responsibilities, reviews and establishes responsibility lists and task lists for all employees, and evaluates on this basis. CR Bldg Materials Tech steps up safety supervision by appointing 33 safety directors, issuing eight work safety systems and norms, and giving work safety compliance guidance for subordinates. CR Bldg Materials Tech establishes a comprehensive safety management system for hazardous chemicals, clarifying health and safety requirements throughout the procurement, transportation, loading/unloading, incoming and outgoing goods for warehouse, use, disposal and other processes. Personnel managing and operating hazardous chemicals demonstrate qualified knowledge and skills in hazardous chemical management. CR Bldg Materials Tech sets up safety standardization review steering group to guide and urge the newly built and acquired bases to achieve work safety standardization. In 2024, seven subordinates, including Tongchuan Runxin New Materials, Laibin Global Classic New Materials and Shangsi Concrete, passed safety standardization enterprise review. CR Bldg Materials Tech launches star-level team building, evaluates teams, and improves the safety awareness and ability of front-line employees. CR Bldg Materials Tech increases the investment in safety, improves the on-site working environment for employees and raises the safety factor of operations.

CR Bldg Materials Tech establishes risk classification and safety hazard inspection system, inspects and eliminates safety hazards, vigorously plays supervisory and guarantee roles, prevents and defuses major safety risks. To further implement policy of "taking full responsibility for assigned regions", the corporate leaders also take the lead in paired assistance for grassroots enterprises, centralize management resources and supervise improvements in safety management. Criteria for identifying potential risks of major accidents are developed. Databases, self-inspection/self-rectification mechanisms, tracking/supervision governance mechanisms and investigation/handling mechanisms are established. Comprehensive safety inspections are conducted, with safety hazard rectification orders issued and followed up, with an aim to remove all safety hazards. Monthly inspection themes are determined, special inspection lists are formulated, and special safety inspections are conducted. Additionally, third-party safety management consulting service agencies are entrusted to conduct comprehensive and systematic safety diagnoses for projects under construction and new commissioning projects, and analyze due diligence and performance of constructors, general contractors, subcontractors and supervisors.



Jing Shiqing, Chairman of the Board of Directors of CR Bldg Materials Tech, conducts safety inspection at Shandong Runhe Company

Emergency management mechanism

In 2024
subordinates actively conducted
safety emergency drills, with
30,300
participants in
2,070
drills in total

CR Bldg Materials Tech actively engages in emergency management work, sets up emergency rescue management command and leadership organization headed by the executives to conduct risk identification and evaluation of emergencies, identify dangerous and hazardous factors, evaluate the harm degree and scope of various consequences, and propose measures to prevent and control accident risks. Comprehensive Response Plan for Work Safety Accidents, *Comprehensive Response Plan for Environmental Emergencies* and *EHS Emergency Management System of China Resources Building Materials Technology Holdings Limited* have been issued, guiding and standardizing emergency management work across all subordinates. Comprehensive emergency rescue platform and emergency rescue command information system have been built to enhance capability to prevent and handle emergencies. In 2024, subordinates actively conducted safety emergency drills, with 30,300 participants in 2,070 drills in total.

Everyone is an All-rounder Expert in Safety and Emergency Response

In June 2024, subordinates of CR Bldg Materials Tech actively responded to the 23rd National Work Safety Month, and joined a series of activities under the theme of Everyone is an All-rounder Expert in Safety and Emergency Response—Smooth Passage of Life.



Tongchuan Runxin New Materials carries out a comprehensive emergency drill for non-coal mine flood prevention and rescue, simulating the collapse of a stope slope due to heavy rain, burying an excavator operator.



Zhaoqing Runsheng, in collaboration with the project partner Hongda Deqing Project Department, carries out an emergency rescue drill, simulating a rear-end collision accident due to the failure of braking system in a mining dump truck, resulting in an injured and unconscious driver.



Yongding Cement holds Safety Open Day activities, spreading safety knowledge and first aid operation highlights through training on first aid equipment use, cardiopulmonary resuscitation skills competition, relay race, friendly match of team rope skipping, etc.

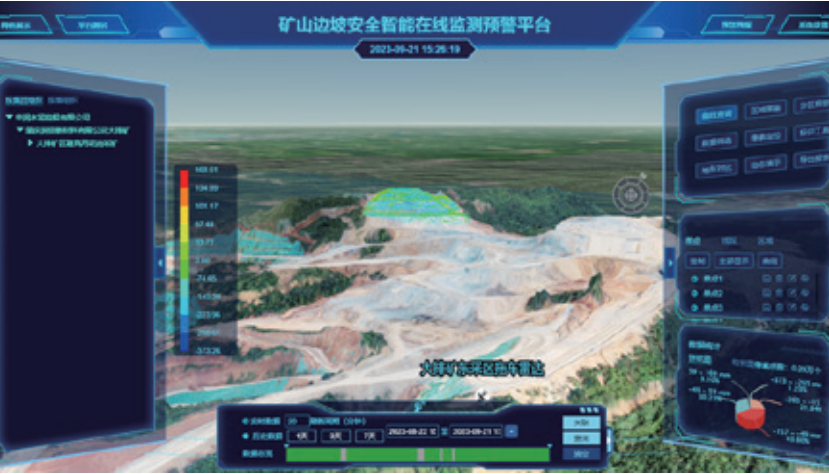


The Greater Bay Area East Region of Structural Building Materials Division and Huiyang District Housing and Construction Bureau of Huizhou City conduct emergency drills for work safety accidents in the ready-mixed concrete field focus on Safety Accidents in Limited Space and Fire Accident Emergency Rescue.

Innovative safety management modes

CR Bldg Materials Tech vigorously promotes "technology-driven safety", deeply integrates big data, 5G and other new infrastructures with work safety, and revolutionizes EHS management concepts in the industry. In 2024, CR Bldg Materials Tech further developed and launched an EHS information system, completed and launched such modules as operation management, stakeholder management, dual prevention mechanism and traffic safety, and integrated information sharing, operation and supervision in one.

CR Bldg Materials Tech constantly strengthens technological enabling for mine management, promotes the application of new processes and technologies. Real-time monitoring, early warning and intelligent safety inspection of high slope are conducted through online slope monitoring system and UAV technology, ensuring slope safety management from the blasting source and effectively avoiding geological disasters and slope collapse accidents. The use of mixed explosive, electronic fence system and other new-type products effectively improves intrinsic safety.



Online Slope Monitoring System

Safety publicity campaigns and trainings

CR Bldg Materials Tech strictly implements professional trainings and assessments for three types of key positions to ensure that all relevant employees hold valid certificates. Basic safety management training courses are provided for managers at all levels, and specialized training courses on safety and major accident hazard judgment and rectification are organized to drivers. The overall quality of the workforce was continuously improved. Since June 2024, CR Bldg Materials Tech has actively mobilized managers and functional personnel at all levels to participate in training and certification programs for work safety and ecological environmental protection knowledge and abilities. This effectively enhanced the safety capabilities of the workforce.

CR Bldg Materials Tech lays stress on the theme of EHS publicity activities, holds EHS knowledge competitions, Work Safety Month, Traffic Safety Day and other thematic publicity activities featuring extensive participation, favorable interaction and experiential value, cultivating safety culture among all employees and building learning strongholds with keen interest in safety.



Fire safety knowledge training and practical emergency drills at Pingnan Industry Park



Safety training of Luoding Cement

Commitments and Fulfillments



2024 Commitments

- Uphold the new development philosophy, solidify the environmental protection management foundation, and take responsibility for green transformation and development
- Improve carbon emission management, and give impetuses to high-quality low-carbon development
- Center around safety management theme of "consolidating EHS Foundation and pursuing zero accident", follow the keynote of "13263" EHS management system, takes action to address the root causes of work safety problems, exert more management efforts for enterprises engaged in large-scale equipment upgrades and trade-ins of consumer goods, promote EHS informatization, improve the overall safety management level at company level, guard against and resolve accidents and adverse incidents



2024 Fulfillments

- Achieved full coverage of ISO 14000 Environmental Management System Certification
- 22 production bases were inscribed on the lists of green factories at provincial or autonomous region level and national levels; Practice Case on Green and Low-carbon Benchmarking Factory of Tianyang Industrial Park was featured in the 2023 Selected Excellent Practice Cases of Green and Low-carbon Development of Chinese Central SOEs
- Utilized over 1 million tons of alternative fuels, reached coal replacement rate of 7.91%, and realized waste heat recovery power generation of 1,487.51 GWh
- Outperformed annual pollutant emission targets, reducing emissions of particulate matter, sulfur dioxide and nitrogen oxide by 57.94%, 9.14%, and 40.72%, compared with those in 2020, respectively
- Added greening area by about 300,000 square meters and 7 provincial-level (autonomous region level) green mines
- Conducted assisting inspections on carbon emission data management, and improved carbon emission data management capabilities
- Direct greenhouse gas emissions (Scope 1) totaled 39,796,912.3 tons of CO_{2e}, indirect greenhouse gas emissions (Scope 2) totaled 550,216.7 tons of CO_{2e}; carbon emission reduction reached 1,408 kt
- Cumulatively invested a total of RMB 325 million in safety management
- 30,300 participants in 2,070 safety emergency drills
- No safety accident at general or above level



2025 Commitments

- Add research and development inputs with focus on such green projects as critical low-carbon clinker technology and utilization of high-value-added alternative fuels, and prop up transformation and upgrading
- Systematically redesign EHS management system, promote "comprehensive reform, overall reconstruction and systematic restructuring" of EHS management, consolidate grassroots foundations, carry out special rectifications in key fields, reform safety assessments and incentive mechanisms, and achieve intrinsic safety
- Achieve 0 accident at major or above level

By the end of 2024

completed training and certification

managers

280

functional personnel

575

post personnel

7,150



Sustainable Development Management

Statement from the Board of Directors

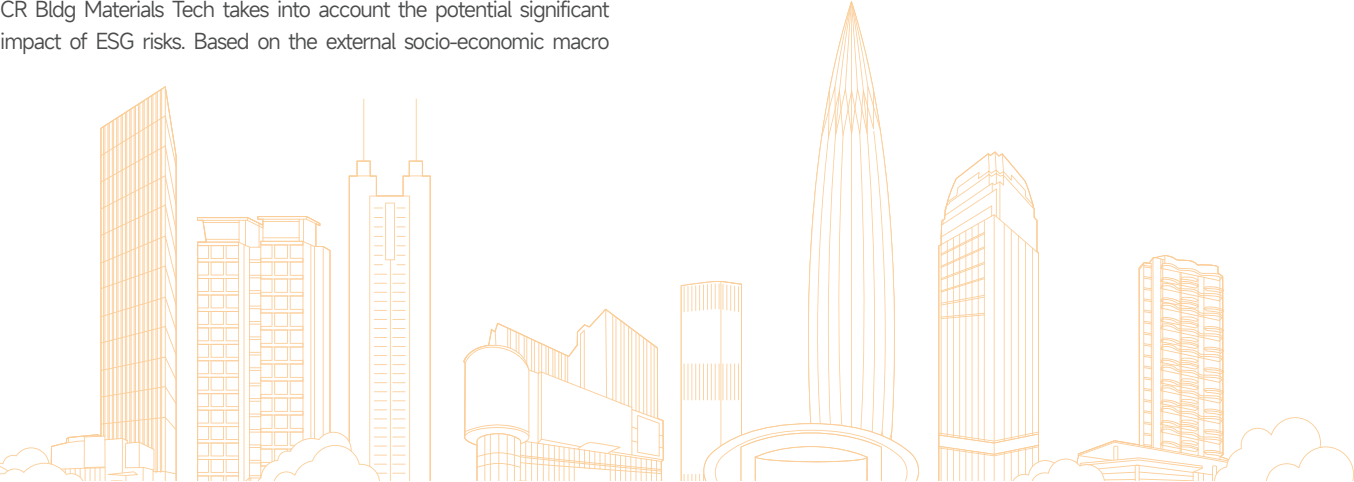
CR Bldg Materials Tech persistently integrates the concept of sustainable development into its corporate operations and management. From a strategic perspective, CR Bldg Materials Tech reviews its social responsibilities, and emphasizes the long-term, directional, and goal-oriented nature of its fulfillment of responsibilities. Taking the perspectives of stakeholders such as shareholders, customers, employees, partners, and communities into account, the Company actively joins ESG practices, including responding to "emissions peaking and carbon neutrality" strategy, strengthening environmental management, improving energy conservation and emission reduction measures, promoting co-processing projects, implementing occupational health management, and reinforcing supply chain responsibility fulfillment. These efforts drive CR Bldg Materials Tech towards higher quality, greater efficiency, and more sustainable development.

As the highest working and decision-making body for ESG matters, the Board of Directors shoulders full responsibility for the corporate ESG strategy and reporting, including overseeing ESG-related work with potential impacts on corporate business or operation, shareholders, and other stakeholders. The Board of Directors attaches great importance to risks and opportunities brought about by ESG matters. The Risk and Compliance Committee under the Board of Directors is responsible for reviewing the strategic planning, policies, implementation rules and reports with respect to the corporate sustainable development and ESG matters, guiding and supervising on ESG risks and opportunities with material impact on the corporate business, and guiding the senior management to take appropriate measures, supervising the corporate commitments and performance on key topics (such as response to climate change, environmental protection and compliance management), and constantly strengthening guidance and management of the Board of Directors for the corporate sustainable development.

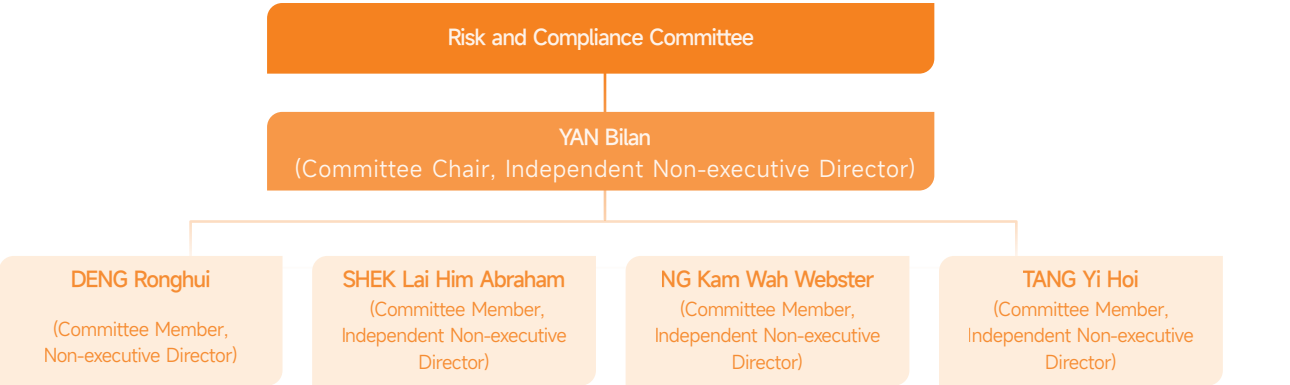
CR Bldg Materials Tech takes into account the potential significant impact of ESG risks. Based on the external socio-economic macro

environment and the corporate development strategy, CR Bldg Materials Tech regularly evaluates important ESG topics and reports them to the Board of Directors for review. The Board of Directors discusses and determines ESG risks and opportunities and regards the management and improvement of important topics as the key ESG task, incorporates them into the overall strategy, and supervises topics management and performance. At the same time, in compliance with the listing rules, CR Bldg Materials Tech formulates ESG management goals and mechanisms, quantifies some important ESG management goals and breaks them down into the individual performance contracts for senior managers and organizational performance contracts for senior and middle managers and heads of subsidiaries. Every year, the Remuneration and Appraisal Committee under the Board of Directors and the senior management conduct performance appraisals accordingly, review and make recommendations on remuneration allocation to the Board of Directors with reference to the corporate goals and objectives as set by the Board of Directors. Additionally, the Risk and Compliance Committee under the Board of Directors regularly reviews the progress in ESG management goals and proposes improvement measures for the subsequent ESG work. Initiated in 2013, the Corporate Culture and Social Responsibility Guidance Committee is responsible for supervising the commitments and performance of key ESG topics and reporting to the Board of Directors, promoting the integration of ESG concepts into corporate operation and management, and helping CR Bldg Materials Tech improve sustainable development capabilities.

This Report discloses the progress and effectiveness of CR Bldg Materials Tech ESG work in 2024 in great detail. The Board of Directors and all Directors guarantee that there are no misrepresentations, misleading statements, or material omissions in this Report, and they are individually and joint liable for the authenticity, accuracy and completeness of its contents.



Governance Structure and Corresponding Responsibilities



Sustainable Development Management Leadership Structure (as of the date of this Report)

Governance structure	Main responsibilities
Risk and Compliance Committee under the Board of Directors	1. Review the compliance with the <i>Corporate Governance Code</i>, review the <i>Corporate Governance Report</i> in annual report and the disclosures in the <i>Environmental, Social and Governance Report</i>, investigate non-compliance situations, and make recommendations on rectifications to the Board of Directors; 2. Discuss the risk management and internal control systems with the managers to ensure that the managers fulfill duties to set up effective systems, and such discussion should cover: (1) Adequacy of resources, employee qualifications and experience, training programs and budgets relating to the Environmental, Social, and Governance performance and reporting; (2) Changes in the nature and severity of material risks (including environmental, social and governance risks), as well as the corporate ability to respond to changes in business and external environment since review in the previous year; 3. Review the <i>Environmental, Social and Governance Report</i> and its scope of disclosure; 4. Review the strategic plans, policies and implementation rules related to the corporate sustainable development and ESG matters; 5. Guide and supervise on ESG risks and opportunities with material impact on the corporate business, and guide the senior management to take appropriate measures in response to the ESG risks and opportunities; 6. Supervise the corporate commitments and performance on key topics (such as response to climate change, environmental protection and compliance management).
Corporate Culture and Social Responsibility Guidance Committee	1. Review the annual plans, important systems and others related to corporate culture and social responsibility or ESG, lead and promote the formulation of corporate sustainable development strategy planning; 2. Arrange for the corporate culture concept system and social responsibility or ESG management system; 3. Review the social responsibility brand practices and dissemination plans.
Corporate Culture and Social Responsibility Guidance Committee Office	1. Formulate corporate culture and social responsibility or ESG related systems according to the corporate development strategy, develop planning for management systems, build responsible brand, and promote implementation; 2. Organize and launch themed activities in terms of corporate culture and social responsibility practice, inherit the revolution gene and spread the concept of social responsibility; 3. Organize corporate culture, social responsibility or ESG related trainings and exchange activities, and build a team of corporate culture lecturers; 4. Coordinate sustainable development report preparation, rating, awards, etc.
Sustainable Development Report Compilation Team	1. Meticulously learn and strictly implement the guidelines, policies, and regulatory requirements of the SASAC of the State Council, the Stock Exchange of Hong Kong Limited and China Resources Group on social responsibility report and ESG report preparation; 2. Formulate the preparation plan for the annual sustainable development report; 3. Organize the compilation of the Chinese and English versions of the annual sustainable development report, including streamlining indicator system, drafting disclosure measurement, and grasping design style; 4. Organize the launch and release ceremonies for the sustainable development report; 5. Conduct sustainable development report rating; 6. Guide subordinates to independently prepare their social responsibility reports; 7. Continuously improve report content, innovate report design and forms of publicity, and strive for better report quality. Rules of Procedure: The Mass Work Department, as the functional department for sustainable development report preparation, comprehensively undertakes specific work of the Committee, pools resources from all parties, and ensures timely and high-quality completion of the sustainable development report. Relevant departments mainly assist in content availability, indicators, English translation, etc.

Governance Mechanisms

Sustainable development concept

LIVE Sustainable Development Concept of CR Bldg Materials Tech

Mission	To provide high-quality products and services and systematic solutions to the public, promote green development, lead digital transformation, thereby building an everlasting business		
Vision	To become a respected world-class building materials company		
Slogan	Casting Excellence, Thriving Beyond		
Concept dimension	Topics	Concept description	Response to SDGs
Leadership	1. Responsibility fulfillment and duty performance	Orient to the pursuit of leadership, optimize management mechanism and improve business processes by improving governance structure, ensuring compliance, risk prevention and control, deepening reform, ensuring safety and strengthening communication, improve scientific decision-making and operational robustness, build a good corporate image, and lay a solid foundation for sustainable development.	
	2. Law-abiding and compliant approach		
Innovation	3. Risk prevention and control		
	4. Deepening reform		
	5. Work safety		
	6. Communication with relevant parties		
Concept pillars	1. Research and development of products and new materials	Take innovation as the core development engine, enhance the competitiveness of enterprises through research and development of products and new materials, production technology innovation, digital intelligence development, intellectual property protection and sci-tech achievement commercialization and other multi-dimensional innovation practices, promote industry progress, and inject impetus for sustainable development.	
	2. Production technology innovation		
Virtues	3. Digital intelligence development	Take employees, customers, partners and the public as the core, actively take public welfare actions to contribute to community happiness and rural revitalization by launching co-creation and sharing, providing quality products and services, and working together for win-win results, build trust, obtain support, create satisfying environment, enjoy social praise, and achieve comprehensive value enhancement.	
	4. Intellectual property protection		
Environment	5. Commercialization of scientific and technological achievements	Plan and develop from the perspective of harmonious coexistence between man and nature, improve energy efficiency in production and operation, promote resource recycling, reduce pollution emissions, carry out ecological protection and restoration, actively respond to climate change, fulfill environmental responsibilities, promote sustainable development and environmental protection to make common progress, and achieve harmonious coexistence with nature.	
	1. Concerted creation by employees		
Virtues	2. Customer satisfaction	Take employees, customers, partners and the public as the core, actively take public welfare actions to contribute to community happiness and rural revitalization by launching co-creation and sharing, providing quality products and services, and working together for win-win results, build trust, obtain support, create satisfying environment, enjoy social praise, and achieve comprehensive value enhancement.	
	3. Win-win partnership		
	4. Public welfare action		
	5. Rural revitalization		
Environment	1. Green production and operation mode	Plan and develop from the perspective of harmonious coexistence between man and nature, improve energy efficiency in production and operation, promote resource recycling, reduce pollution emissions, carry out ecological protection and restoration, actively respond to climate change, fulfill environmental responsibilities, promote sustainable development and environmental protection to make common progress, and achieve harmonious coexistence with nature.	
	2. Resource recycling		
	3. Pollution emission control		
	4. Ecological protection and restoration		
	5. Addressing climate change		

Sustainable development system

CR Bldg Materials Tech attaches great importance to building a sustainable development system and strives to promote the standardization and normalization of sustainable development work through establishing and improving systems and mechanisms. CR Bldg Materials Tech formulates *Social Responsibility Work Management Measures of China Resources Building Materials Technology Holdings Limited* following *Global Reporting Initiative (GRI) Sustainability Reporting Standards*; *Environmental, Social and Governance Reporting Code and Guidance on Climate Disclosures* of the Stock Exchange of Hong Kong Limited; *Guide on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR 4.0)*, *Guide on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-ESG5.0)* and *Guidelines on Corporate Sustainability Reporting for Chinese Enterprises (CASS-ESG 6.0)—Non-metallic Mineral Products Industry* of the Chinese Academy of Social Sciences; *Guide on Social Responsibility of Cement Enterprise*, *Guidelines for Corporate Social Responsibility Reporting of Cement Enterprise* and *Social Responsibility Evaluation Index System of Cement Enterprises* of China Cement Association; *Guide for ESG Reports of Building Materials Enterprises* of Chinese Society for Testing & Materials, Zhongguancun; *Reference Index System for ESG Reports of Listed Companies Controlled by China's Central SOEs* of the SASAC General Office of the State Council; *Management Measures of China Resources Group for Social Responsibility* and *"1+N" Social Responsibility Index System Management Manual of China Resources Group*. The *Social Responsibility Work Management Measures of China Resources Building Materials Technology Holdings Limited* clarifies the main work duties, develops the concepts of social responsibility and ESG, standardizes social responsibility work, enhances responsibility governance, improves the sustainable development management system, and strengthens the corporate information disclosure management.

Sustainable development management policy

CR Bldg Materials Tech implements legal, compliance, internal control and risk systems, and establishes an integrated risk control and compliance management model suited to business characteristics. Focusing on key EHS fields, and based on national environmental protection policies, carbon peaking and carbon reduction policies, and the new *Law of the People's Republic of China on Work Safety*, CR Bldg Materials Tech comprehensively works out a list of high-risk areas in the environmental, social and governance domains, continuously strengthens the assessment and tracking management of major environmental, social and governance risks, continuously reviews the adequacy of ESG-related management resources, vigorously exerts sustainable development efforts, and effectively advances the implementation of responsibility practices and related work.

Sustainable development capabilities

CR Bldg Materials Tech actively organizes and participates in internal and external training and seminars on social responsibility and ESG, proactively keeps abreast of the latest developments in domestic and foreign social responsibility and ESG work, learns more about social responsibility and ESG theory, accurately understands the concept of sustainable development report preparation, and grasps the methods of report preparation. CR Bldg Materials Tech actively participates in ESG report evaluation activities and decides on the winners of "Annual Outstanding Social Responsibility Project Award". This encourages all entities to actively carry out characteristic responsibility fulfillment practices while realizing economic profits, showcase social responsibility work achievements and build characteristic responsibility brands.

On July 17, 2024

CR Bldg Materials Tech successfully held the Third Science and Technology Innovation Forum themed Innovation and Development through Pathfinding with Science and Technology in Guangzhou Learning and Innovation Center. Mr. Wu Zepeng, head of Mass Work Department, delivered a speech with a topic of Boosting High-quality Corporate Development with Higher ESG Work Level;

On December 9-10, 2024

CR Bldg Materials Tech held training courses themed Deepening ESG Concept and Leading Sustainable Development and Public Opinions Literacy in the Era of Integration Media, with focus on grassroots public opinions management and ESG work, etc.

Responsible brand

CR Bldg Materials Tech actively inherits the revolution gene, and adheres to the concept of corporate social responsibility for a long time. Various production bases help the economic and social development of the surrounding areas with various measures, such as money and goods donations, assistance and environmental problem resolution, echoing with rural revitalization strategy with concrete actions. In 2024, CR Bldg Materials unveiled a responsible brand with the theme of Runmei Countryside, integrating the donations and assistance of various entities to the surrounding villages, expanding the influencing power of the responsible brand, and taking practical actions to shoulder the responsibility and mission for promoting the rural revitalization strategy in an all-round manner.



CR Bldg Materials Tech Runmei Countryside responsibility brand officially released

Stakeholder Communication

CR Bldg Materials Tech highly values the demands and expectations of stakeholders and actively builds diversified internal and external communication platforms. It discloses the responsibility fulfillment information in a timely, accurate, and rigorous manner through channels or forms, such as information releases, information submissions, thematic presentations, shareholder meetings, site visits, public welfare activities, open days, employee activities, official website, and official WeChat accounts. This comprehensively disseminates and showcases the sustainable development concepts and responsibility dynamics of CR Bldg Materials Tech, enhancing stakeholders' understanding and support. CR Bldg Materials Tech also actively accepts reasonable opinions and suggestions from internal and external stakeholders, continuously optimizes and improves the sustainable development management work, enhances its overall competitiveness, and achieves win-win cooperation with stakeholders.

2024 Public Open Day of CR Bldg Materials Tech with the theme of Lighting the Future together with You

On October 26, 2024, 2024 Public Open Day of CR Bldg Materials Tech under the theme of Lighting the Future together with You was held at Tianyang Industrial Park, which was attended by over 80 persons, including representatives from governmental organs of Tianyang District People's Government, Tianyang Experimental Middle School, Tianyang No. 5 Primary School, neighboring village communities, customers, family members of employees, as well as key stakeholders, such as CSR Cloud Group, reporters of Nanfang Metropolis Daily, Daily Sunshine, and Tianyang Integration Media.

Attendees were divided into groups to visit and learn about innovative projects within Tianyang Industrial Park, including smart mine, intelligent control center, unmanned laboratory, collaborative disposal facility and EHS Experience Hall. Through these visits, attendees gained a deep understanding of the advanced and efficient whole-process integrated Lighthouse Factory, bridged the gap between CR Bldg Materials Tech and the public, enhanced public awareness and recognition, and effectively reinforced core competitiveness and social visibility of CR Bldg Materials Tech.

[Scan the QR code for more information]

Open Day of Work Safety Month
themed Parent-child Safety together at
Fengkai Cement

Stakeholder category	Demand and expectation	Communication and response
The government and regulatory authorities	● Legitimate and compliant operation ● Work safety ● Occupational health ● Environmental protection ● Regional economic development ● Employment and taxation	● Strictly abide by national laws, regulations and policies ● Go further in energy saving, pollution reduction and emission reduction, and boost green and low carbon development ● Hold firm on work safety, and strengthen occupational health management ● Make more efforts for central-local cooperation, and offer job opportunities ● Pay taxes in full in accordance with laws ● Actively respond to governmental calls, and disclose corporate information in a timely manner
Shareholders and investors	● Corporate value ● Quality improvement and efficiency ● Standardized corporate governance ● Sustainable development ● Risk control ● Compliance information disclosure ● Protection of shareholders' rights and interests	● Elevate business management, performance and asset value ● Improve quality and efficiency, and enhance overall competitiveness ● Standardize the Board of Directors construction, and improve scientific and efficient governance system ● Focus on environmental protection and social responsibility, and improve relevant information disclosure and communication quality ● Enhance prevention and mitigation capabilities for major risks ● Establish compliance management system, improve compliance review mechanisms, and offer compliance trainings ● Strengthen investor relations management and information disclosure, and protect the legitimate rights and interests of all shareholders
Customers	● Product quality ● Customer service ● Customer rights and interests ● Innovative development	● Comprehensively guarantee product quality ● Establish and improve customer service system, refine customer feedback and complaint handling mechanisms, and conduct customer satisfaction surveys ● Strengthen marketing management system construction, protect customers' legitimate rights, interests and information security ● Promote product iteration, upgrades and technological innovations
Employees	● Employee rights and interests ● Remuneration and benefits ● Democratic management ● Training and development ● Employee care ● Health and safety	● Adhere to equal employment principle, and protect legitimate rights and interests of employees ● Hold employees' congress, and establish employee communication platform ● Formulate competitive remuneration and benefits system, and improve benefit package ● Conduct employee trainings, evaluations and commendations, and improve incentives and promotion mechanisms ● Organize various activities to support all facets of a well-balanced work and personal life for employees ● Pay attention to occupational health and mental health, and care for employees in distress
Suppliers and partners	● Timely fulfillment of contracts ● Fair trade ● Integrity and honesty ● Equality and mutual benefit ● Mutually beneficial cooperation ● Industry advancement, transformation and upgrading	● Strengthen supplier and procurement order management, and emphasize contract fulfillment ● Carry out regular anti-corruption and honesty education, implement transparent and compliant procurement ● Step up industry exchanges and cooperation, build equal and mutually beneficial cooperation mechanisms and platforms ● Conduct regular meetings, visits and view exchanges ● Participate in formulation of industry standards and technology research
Communities	● Ecological protection ● Community development ● Public welfare and charity ● Local employment and economic development	● Strengthen work safety management, green production and green office, improve comprehensive utilization efficiency of energy and resources, and develop circular economy ● Build green mines and green factories, and promote collaborative disposal projects ● Actively participate in community building ● Actively join rural revitalization, public welfare, charity and volunteer activities ● Support local education, and offer jobs
Media	● Legitimate and compliance ● Information disclosure ● Operating performance ● Sustainable development	● Timely, truthful and accurate disclosure of enterprise information and operating performance ● Consciously accept media supervision, and promptly respond to concerns ● Facilitate external information release channels, and spur interaction and communication with the media

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Identification and Management of Material Topics

Identification of material topics

To fully and accurately convey the progress in sustainable development to internal and external stakeholders, CR Bldg Materials Tech gradually improves identification and management of sustainable development topics. Every year, before the preparation of the sustainable development report, CR Bldg Materials Tech gives consideration to national policies, corporate development, standard guidelines, benchmarking with peers and other multi-dimensional factors, comprehensively identifies and reviews the annual material topics based on the existing list of material topics, and constantly improves material topics management model.

Policy trend analysis

Closely follow national macroeconomic policy requirements, probe into the national, provincial and municipal policies and regulations with reference to the initiatives and requirements of the building materials and cement industries, and analyze the sustainable development trends of the building materials and cement industries.

Corporate development planning

Identify key topics of great importance to strategic goals, with reference to the strategic development planning and annual targets of CR Bldg Materials Tech.

Disclosure standard analysis

Abide by Appendix C2 of the Stock Exchange of Hong Kong Limited—*Environmental, Social and Governance Reporting Code to the Listing Rules and Guidance on Climate Disclosures*; *Global Reporting Initiative (GRI) Sustainability Reporting Standards*; *Guide on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR 4.0)*; *Guide on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-ESG 5.0)* and *Guidelines on Corporate Sustainability Reporting for Chinese Enterprises (CASS-ESG 6.0)*—*Non-metallic Mineral Products Industry* of the Chinese Academy of Social Sciences; *Guide on Social Responsibility of Cement Enterprise*, *Guidelines for Corporate Social Responsibility Reporting of Cement Enterprise and Social Responsibility Evaluation Index System of Cement Enterprises of China* Cement Association, and keep abreast of the latest sustainable development topics management standards and information disclosure requirements.

Peer benchmarking analysis

Benchmark outstanding sustainable development reports of domestic and international peers, and identify material topics in the building materials and cement industries, as well as the ways to respond to stakeholders.

Based on the above analysis dimensions, 30 material topics with substantive impacts on CR Bldg Materials Tech are identified from the environmental, social, and governance dimension.

Governance

- 1 Management efficiency, operational performance and corporate value
- 2 Legal compliance and risk management
- 3 Business ethics and anti-corruption
- 4 Information disclosure and transparency
- 5 Deepening reform and high-quality development

Environment

- 6 Environmental governance and compliance
- 7 Energy and resource management
- 8 Environmental protection technology and clean energy
- 9 Water resource use and effectiveness
- 10 Pollutant emissions control
- 11 Waste treatment and disposal
- 12 Comprehensive utilization and circular economy
- 13 Responding to climate change and low-carbon development
- 14 Ecological environment protection and biodiversity
- 15 Green mine construction

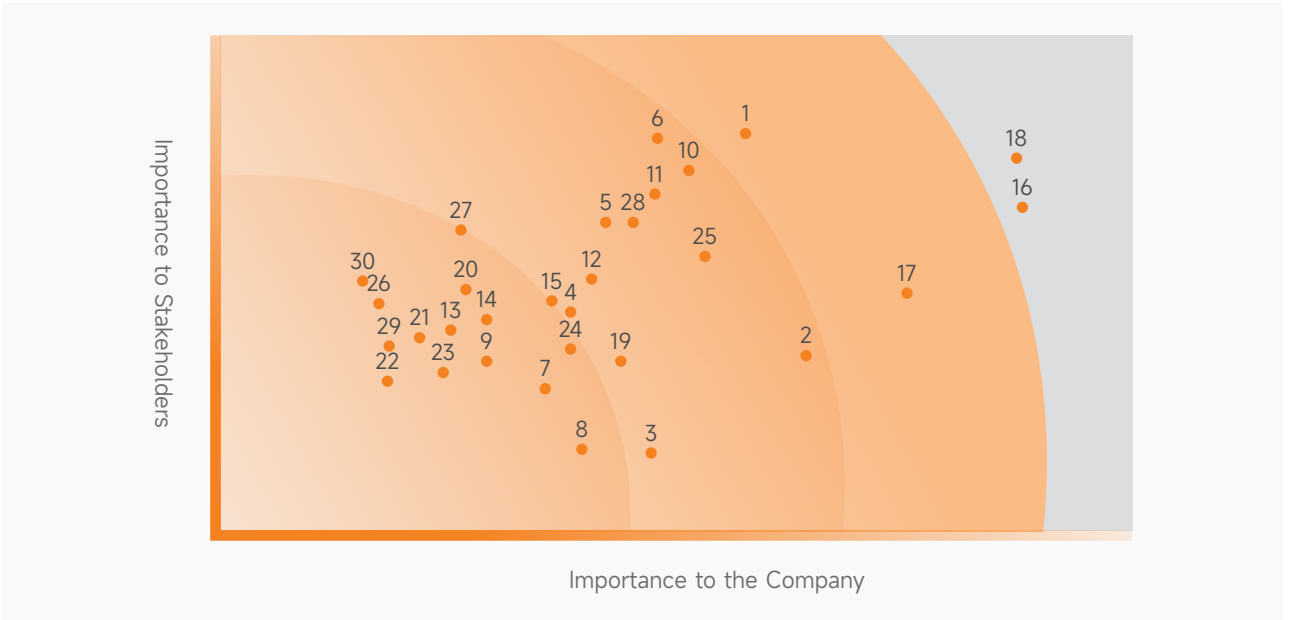
Society

- 16 Employee rights protection
- 17 Employee growth and care
- 18 Occupational health and safety
- 19 Technological innovation and digital intelligence
- 20 New materials and green product research and development
- 21 Intellectual property protection and sci-tech achievement commercialization
- 22 Sustainable development of the supply chain
- 23 Industry exchange and development
- 24 Promoting fair competition
- 25 Product and service quality
- 26 Smart marketing
- 27 Customer rights protection
- 28 Customer satisfaction
- 29 Charity and public welfare
- 30 Supporting rural revitalization

Prioritization of material topics

In 2024, to effectively put sustainable development concept into practice, CR Bldg Materials Tech designed a questionnaire on material topics to extensively grasp the degree of attention paid by internal and external stakeholders to various material topics through email pushing, one-on-one invitation and official WeChat account pushing. A total of 2,677 valid questionnaires were collected. Based on the survey results, the material topics were prioritized on two dimensions of "importance to corporate development" and "importance to stakeholders", and a matrix of material topics was made. Based on the review and suggestions from the Board of Directors, senior managers and external experts on the material topics and prioritization results, the core material topics with high stakeholder attention and close relevance to the corporate sustainable development were identified as the highlights of information disclosure and response in the sustainable development report of CR Bldg Materials Tech.

Matrix Diagram of Substantive Topics in CR Bldg Materials Tech 2024 Sustainable Development Report



Honors for Responsibility



- CR Bldg Materials Tech 2023 Sustainable Development Report received **Five-Star Top-notch Model Rating (Dimension of Social Responsibility)** from **China Corporate Social Responsibility Report Rating Committee** for the first time
- CR Bldg Materials Tech Sustainable Development Report received **Five-Star Excellence Rating (Dimension of ESG Evaluation)** from **China Corporate Social Responsibility Report Rating Committee** for two consecutive years
- The **13th** place in **CCTV list of Top 100 ESG Listed Companies in China**
- The **6th** place in **CCTV list of Top 50 ESG Listed Companies in Guangdong-Hong Kong-Macao Greater Bay Area, China**
- The **11th** place in **China's Central SOEs ESG · Pioneering 100 Index of the SASAC of the State Council**
- Winner of **Responsible Whale and Bull Award—ESG Carbon Peaking and Carbon Neutrality Pioneer Award**

Future Outlook

We struggled and advanced bravely in the past and will forge ahead with determination in the future. The year 2025 marks the conclusion of the "14th Five-Year Plan" and the start of roadmap for the "15th Five-Year Plan". Confronted with a complex and grim situation characterized by Four Unprecedented Challenges, CR Bldg Materials Tech will continuously implement the new development philosophy, rise to various risks and challenges from a higher standpoint, stricter standards, and deeper levels. We will spare no effort to fulfill the targets and tasks set in the "14th Five-Year Plan" and the "15th Five-Year Plan", deliver clear strategic framework and robust performance, and shape up a new paradigm of high-quality corporate development.

We will earnestly implement the "1246" model of China Resources Group, further deepen the Four Reshapings, lay stress on the annual management theme, seize the opportunity of "Year for Improving Concept, Capability, and Work Style", scientifically develop the "15th Five-Year Plan". We will continuously promote governance system construction, bolster development confidence, maintain strategic willpower, and make every effort to realize annual operational targets. We will constantly sharpen leading edges, overcome weaknesses, forge new strengths, build up the strength and quality of primary business, vigorously expand operations in Hong Kong SAR, facilitate the launch of new materials business. We will adhere to the system concept and consolidate lean operation foundations, continuously promote the building of the governance system to a deeper level. We will strengthen technological innovation enabling, stimulate new transformational vitality, develop quality productive forces according to local conditions, promote the application of high-end, intelligent and green technologies, and accelerate the construction of intelligent manufacturing "lighthouse network". We will go further in organizational capacity building, comprehensively improve organizational vitality and efficiency, and achieve simultaneous growth in business and organization, laying a solid foundation for promoting the sustainable development.

On this new journey, every member of CR Bldg Materials Tech is a dream writer. We will honor our mission, proceed with firm confidence, strive to make progress, grow towards new style with entrepreneurial spirit, deepen reform with innovative spirit, stimulate new achievements, and make new contributions. Let us jointly break new ground and advance the high-quality development of CR Bldg Materials Tech!



Appendixes

Table of Key Performance Indicators

Statistical indicator	Unit	2022	2023	2024
Total assets	RMB million	71,856	72,792	71,963
Net assets	RMB million	45,260	45,747	45,697
Return on total assets	%	3.2	2.0	1.4
Return on equity	%	3.4	1.4	0.2
Turnover	RMB million	29,332	25,550	23,038
Pre-tax earning	RMB million	1,897	914	450
Annual earning	RMB million	1,552	619	110
Earning attributable to owners of the Company	RMB million	1,613	644	211
Equity attributable to owners of the Company	RMB million	43,825	44,108	44,121
Earnings before interest and tax	RMB million	2,199	1,450	986
Ratio of profit to cost	%	6.8	3.6	2.0
Sales cost	RMB million	24,716	21,788	19,237
Sales and distribution expenses	RMB million	455	506	425
General and administrative expenses	RMB million	2,441	2,322	2,630
Financial expenses	RMB million	301	536	536
Rate of value preservation and appreciation of state-owned assets	%	103.3	101.4	100.4
Comprehensive strength ranking among the Chinese listed cement companies	Place	4	5	5
Number of trainings for law-abiding and compliant approach	Time	6	23	30
Number of trainees for trainings on law-abiding and compliant approach	Person-time	440	2,200	3,200
Number of anti-corruption trainings	Time	381	373	514
Number of trainees for anti-corruption trainings	Person-time	17,392	18,627	25,315
Number of corruption-related lawsuits initiated or concluded	Number	0	0	0
Total R&D investment	RMB million	320	209	174
Percentage of R&D investment in operating income	%	1.03	0.76	0.7

Statistical indicator	Unit	2022	2023	2024
Expenditure on cooperation among enterprises, universities and research institutes	RMB 10,000	5,515	554	270
Number of R&D employees	Person	76	81	153
Number of innovative projects under research	Item	21	28	32
Number of publications of papers, software copyrights, etc.	Number	33	69	50
Number of new industry, national or international standards with the Company as participant	Number	6	7	5
Number of new patent licenses	Item	54	32	49
Number of patents held and patent applications	Item	490	539	601
Number of invention patents held	Item	42	59	91
Number of new invention patents	Item	10	17	31
Significant innovation awards	Number	1	0	6
Number of commercialized scientific and technological achievements	Item	-	0	0
Qualified Rate of Products	%	100	100	100
Percentage of products recalled for safety and health reasons in total sold or shipped products	%	0	0	0
Customer satisfaction	%	97.6	98.2	98.17
Customer complaints handling rate	%	100	100	100
Number of complaints for products and services	Case	54	25	31
Number of complaints for products and packaging	Case	10	1	0
Contract performance rate	%	91	91	91
Number of strategic cooperation agreements executed	Copy	14	9	4
Total number of suppliers	Number	12,665	18,629	19,008
Number of reviewed suppliers	Number	12,665	18,629	19,008
Number of suppliers whose cooperation has been suspended due to non-compliance	Number	17	54	43
Number of potential suppliers rejected for non-compliance	Number	48	7	262
Number of trainees from suppliers	Person	746	1,123	1,249
Total employees	Person	19,046	17,939	17,030
Number of male employees	Person	15,677	14,839	14,110
Number of female employees	Person	3,369	3,100	2,920
Number of employees aged 29 and below	Person	1,786	1,656	1,668

Statistical indicator	Unit	2022	2023	2024
Number of employees aged 30-39	Person	7,524	6,778	5,986
Number of employees aged 40-49	Person	6,814	6,456	6,130
Number of employees aged 50 and above	Person	2,922	3,049	3,246
Number of ethnic minority employees	Person	3,734	3,531	3,389
Number of employees in Chinese Mainland	Person	18,702	17,596	16,645
Number of employees in Hong Kong SAR, China	Person	344	343	385
Number of employees with disabilities	Person	50	43	35
Proportion of female managers	%	13	14	14
Employment contract execution rate	%	100	100	100
Social insurance coverage rate	%	100	100	100
Physical examination coverage rate	%	100	100	100
Number of employees accepting health checkup	Person	19,046	17,939	17,030
Incidence of occupational diseases	Person	2	0	4
Average number of days of paid annual leave per employee	Day	13.6	14.1	14.0
Total investment in employee training	RMB 10,000	709	891	908
Per capita investment in training	RMB	372	497	533
Per capita training duration	Hour	9.5	18.9	17.6
Per capita training duration of male employees	Hour	9.8	19.6	21.3
Per capita training duration of female employees	Hour	10.6	21.9	20.8
Per capita training duration of senior managers	Hour	14.2	24.8	78.9
Per capita training duration of employees engaged in finance, administration and other positions	Hour	11.3	22.5	27.5
Per capita training duration of production employees	Hour	8.3	16.4	9.9
Per capita training duration of technology employees	Hour	13.2	27.0	32.9
Per capita training duration of marketing employees	Hour	6.6	13.2	21.9
Training coverage rate of employees	%	100	100	100
Training coverage rate of male employees	%	100	100	100
Training coverage rate of female employees	%	100	100	100
Training coverage rate of senior managers	%	100	100	100

Statistical indicator	Unit	2022	2023	2024
Training coverage rate of employees engaged in finance, administration and other positions	%	100	100	100
Training coverage rate of production employees	%	100	100	100
Training coverage rate of technology employees	%	100	100	100
Training coverage rate of marketing employees	%	100	100	100
Active turnover rate of employees	%	2.8	3.2	4.5
Turnover rate of employees	%	11.7	8.8	11.0
Turnover rate of male employees	%	2.9	3.2	4.7
Turnover rate of female employees	%	3.1	4.2	5.2
Turnover rate of employees aged 29 and below	%	12.8	14.9	18.4
Turnover rate of employees aged 30-39	%	2.6	3.2	4.7
Turnover rate of employees aged 40-49	%	1.0	1.4	2.3
Turnover rate of employees aged 50 and above	%	1.3	0.9	1.4
Turnover rate of employees in Chinese Mainland	%	2.7	3.1	4.5
Turnover rate of employees in Hong Kong SAR, China	%	14.0	14.3	16.1
Investment in work safety	RMB million	227	299	342
Number of full-time safety management personnel	Person	217	242	182
Number of licensed safety management personnel	Person	1,316	1,380	1,325
Number of certified safety engineers	Person	81	125	122
Number of participants in safety training	Person-time	271,508	276,380	285,580
Credit hours for Safety training	10,000 credit hours	40.7	41.5	52.6
Safety training coverage rate	%	100	100	100
Number of safety emergency drills	Time	1,711	1,778	2,070
Number of participants in emergency drills	Person-time	24,721	25,495	30,300
Number of work injury accidents	Case	14	9	6
Number of accidents at general and above level	Case	1	3	0
Number of deaths in accidents	Person	1	2	0
Death rate per thousand employees in accidents	‰	0.05	0.11	0
Number of working days lost due to work injury	Day	6,711	16,505	280
Number of new recruitments	Person	2,148	1,157	1,174
Taxation	RMB million	346	295	340

Statistical indicator	Unit	2022	2023	2024
Proportion of local procurement	%	62	59	48.7
Total amount of charity donations	RMB million	5.11	3.37	2.10
Total investment in environmental protection	RMB million	507	415	320
Investment in technological transformation for energy saving and emission reduction	RMB million	159	99	4.7
Waste heat power generation	GWh	1,617.3	1,536.2	1,487.51
Clean energy usage	kWh	6,264,603	39,871,469	57,804,842
Comprehensive energy consumption	kt of standard coal	5,976	5,371	5,222
Comprehensive energy consumption per RMB 10,000 output value (comparable price)	Tons of standard coal/RMB 10,000	2.40	2.40	2.29
Comprehensive energy consumption per RMB 10,000 added value (comparable price)	Tons of standard coal/RMB 10,000	9.43	8.45	7.81
Annual energy consumption reduction	Tons of standard coal	247,399.80	604,725.00	149,398.00
Power consumption	GWh	5,184	4,802	4,786
Electricity consumption of cement and clinker	GWh	5,156	4,779	4,765
Electricity consumption of concrete	GWh	28	23	21
Electricity consumption per ton of cement	kWh	71.3	70.9	68.3
Electricity consumption per cubic meter of concrete	kWh	2.8	2.8	2.8
Coal consumption	kt	7,797	6,758	6,342
Unit coal consumption per ton of clinker	kg	138.7	132.0	130.0
Standard coal consumption per ton of clinker	kg	99.5	98.2	97.2
Water resource consumption	kt	25,281	21,760	19,694
Water consumption per unit of cement product	Tons of water consumption per ton of cement output	0.3512	0.3297	0.3151
Water consumption per unit of clinker	Tons of water consumption per ton of clinker output	0.4328	0.4127	0.4027
Wastewater discharge	10,000 tons	0	0	0
Recycled water consumption	10,000 tons	61,409	56,563	51,784
Proportion of recycled water consumption	%	-	96.3	96.34
Proportion of sacked cement	%	27.7	28.7	29.7
Packaging material consumption	Ton	36,000	39,086	38,323
Packaging materials consumption intensity	kg per ton of sacked cement output	1.98	2.11	2.18
Greenhouse gas emission	Tons of CO _{2e}	45,386,165.3	41,755,121.5	40,347,129.0

Statistical indicator	Unit	2022	2023	2024
Greenhouse gas emission density	Tons of CO _{2e} per ton of clinker output	0.8313	0.8141	0.8253
Direct greenhouse gas emission (Scope 1)	Tons of CO _{2e}	44,372,407.3	41,195,730.8	39,796,912.3
Direct greenhouse gas emission density (Scope 1)	Tons of CO _{2e} per ton of clinker output	0.8127	0.8032	0.8146
Indirect greenhouse gas emission (Scope 2)	Tons of CO _{2e}	1,013,758.0	559,390.7	550,216.7
Indirect greenhouse gas emission density (Scope 2)	Tons of CO _{2e} per ton of clinker output	0.0186	0.0109	0.0107
Carbon emission reduction	kt	8,018	3,631	1,408
Nitrogen oxide emission	Ton	25,947	22,660	21,465
Nitrogen oxide emission density	kg per ton of clinker output	0.47	0.45	0.44
Nitrogen oxide emission concentration	mg/m ³	199	198	178
Sulfur dioxide emission	Ton	1,542	1,409	1,491
Sulfur dioxide emission density	kg per ton of clinker output	0.03	0.03	0.03
Sulfur dioxide emission concentration	mg/m ³	10	13	13.4
Particulate matter emission	Ton	1,078	908	747
Particulate matter emission density	kg per ton of clinker output	0.02	0.02	0.015
Particulate matter emission concentration	mg/m ³	5.76	5.45	4.73
Non-hazardous waste emission	Ton	77,723.96	70,163.19	90,631.96
Non-hazardous waste emission density	kg per ton of clinker output	1.38	1.40	1.85
Hazardous waste emission	Ton	347	440	418
Hazardous waste emission density	kg per ton of clinker output	0.0062	0.0088	0.0086
Waste recycling rate	%	83.12	63.97	97.96
Comprehensive utilization of industrial waste slag	Kt	18,149	19,412	19,704
Collaborative disposal of industrial hazardous waste	Ton	30,980	32,531	49,172
Collaborative disposal of urban and rural domestic waste	Ton	205,877	198,073	245,023
Collaborative disposal of municipal sludge (water content of 80%)	Ton	632,574	640,672	830,422

Remarks:

- 1
- Supplier training covers responsibility training in terms of safety management, environmental protection requirements, anti-corruption, laws and regulations, among others.
- 2
- The total number of employees has decreased. CR Bldg Materials Tech actively makes progress in building intelligent factories, optimizes processes through technological transformation and technological measures to improve equipment operation efficiency, endeavors to cultivate compound skilled talents to increase the overall labor productivity, continuously narrows the gap from or even surpasses industry benchmarks, gradually achieves first-class labor efficiency, and improves organizational efficacy and competitiveness.
- 3
- Investment in technological transformation for energy saving and emission reduction has slowed down. Until the mid-2023, the previous technological transformation projects, invested by CR Bldg Materials Tech, were successively completed and achieved significant results. 30% of the production capacity has reached the national benchmark level. The investment pace in technological transformation has been controlled according to changes in the market environment and the needs for new business expansion.
- 4
- The statistical scope of electricity consumption includes cement production bases, independent cement grinding stations, and domestic concrete batching plants owned by subsidiaries of CR Bldg Materials Tech. Production bases calculate the monthly purchased electricity for production based on electricity bills, and such data are collected and integrated into the proprietary data management system of CR Bldg Materials Tech.
- 5
- The statistical scope of coal consumption refers to cement production bases owned by subsidiaries of CR Bldg Materials Tech. *Planning and Statistics Management Regulations of China Resources Building Materials Technology Holdings Limited (2022 Edition)* has been formulated. The statistical caliber and conversion methods for energy consumption data are uniformly implemented in accordance with *GB16780-2021 Ceiling Energy Consumption Per Unit Cement Products* and *GBT27977-2022 Test and Calculation Methods of Electricity Efficiency of Cement Production*.
- 6
- The statistical scope of greenhouse gas emissions refers to the main emission outlets of cement production bases owned by subsidiaries of CR Bldg Materials Tech. Direct greenhouse gas emission sources mainly include fuel combustion and industrial production processes; indirect greenhouse gas emission sources mainly include net purchased electricity. For greenhouse gas calculation standards and methods, *Instructions for Enterprise Greenhouse Gas Emission Accounting and Reporting—*

Cement Clinker Production, issued by the Ministry of Ecology and Environment, should prevail. EHS Department of CR Bldg Materials Tech collects and integrates relevant annual data.

7 The statistical scope of nitrogen oxides, sulfur dioxide, and particulate matter emissions refers to the main emission outlets of cement production bases owned by subsidiaries of CR Bldg Materials Tech. The standards, methods, assumptions and/or calculation tools, and conversion factors for pollutant emissions and intensities are derived from *Specifications and Test Procedures for Continuous Emission Monitoring System for SO₂, NO_x and Particulate Matter in Flue Gas Emitted from Stationary Pollution Sources (HJ76-2017)*. Production bases have installed continuous emission monitoring system (CEMS), and monitoring data are transmitted online to environmental protection authorities in real time. The environmental protection authorities review and accept the validity of CEMS data and compare system accuracy on a quarterly basis. Through CEMS, real-time pollutant emissions are monitored in flue gas, pollutant emissions are calculated, and such data are collected and integrated into the proprietary data management system of CR Bldg Materials Tech.

8 Changes in statistical standards related to carbon emissions in 2025 will result in an increase in the carbon emission intensity data for the year. On September 14, 2024, the Ministry of Ecology and Environment issued four technical specifications for the national carbon emission trading market, including *Guide for Accounting and Reporting of Greenhouse Gas Emissions from Enterprises—Cement Industry (CETS-AG-02.01-V01-2024)*. The new standard introduces significant changes in relevant requirements: whereas the previous standard allowed enterprises to adopt measured values, the new standard primarily adopts default values and mandates separate measurement for alternative raw materials that can reduce carbon emissions. Taking the carbon emissions generated by fossil fuels as an example, with the low calorific value of fossil fuels as a critical parameter. Under the new standard, the default low calorific value of bituminous coal is set at 23.076 GJ/t, whereas under the old standard, the low calorific value of coal could be determined based on specific coal types. CR Bldg Materials Tech predominantly uses bituminous coal, with a small amount of anthracite and lignite. The average low calorific value of the used bituminous coal is approximately 21.91 GJ/t, which is lower than the default value specified in the new standard. Since the higher low calorific value corresponds to the greater carbon emission intensity, this adjustment leads to an increase in the carbon emission intensity per ton of clinker.

Indicator Index

Level 1 heading	Level 2 heading	Guidelines on Corporate Sustainability Reporting for Chinese Enterprises (CASS-ESG6.0)	Global Reporting Initiative (GRI) Sustainability Reporting Standards	Environmental, Social and Governance Reporting Code of the Stock Exchange of Hong Kong Limited (HKEX ESG Code)
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A Letter to Stakeholders		P2.1	2-22	
About CR Bldg Materials Tech	Company Overview	P3.1	2-1	
	Strategic Goals	P3.2		
	Corporate Culture	P3.2		
	Business Areas			
	Business Distribution	P3.3	2-6	
	Product Brands			
	Project Cases			
	Organizational Structure	P3.1	2-1	
Milestones in 2024		P3.3		
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	Upholding Legal and Regulatory Compliance	G2.2.1/G2.2.2/G2.2.3	2-23/2-24/2-27/206-1	
	Strengthening Risk Prevention and Control	G1.2.3/G1.2.4	2-24	
	Upholding Integrity	G2.1.1/G2.1.2/G2.1.3/G2.1.8	205-1/205-2/205-3	B7.1/B7.2/B7.3
	Deepening Corporate Reform	S4.3.2		
	Innovation Leading Development	S2.1.1/S2.1.2/S2.1.3/S2.1.4/S2.1.5/S2.1.6/S2.1.8/S2.1.9/S2.1.10/S2.1.11/S2.1.12/S2.1.13		

Level 1 heading	Level 2 heading	Guidelines on Corporate Sustainability Reporting for Chinese Enterprises (CASS-ESG6.0)	Global Reporting Initiative (GRI) Sustainability Reporting Standards	Environmental, Social and Governance Reporting Code of the Stock Exchange of Hong Kong Limited (HKEX ESG Code)
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	Pursuit of Craftsmanship in Quality	S3.3.1/S3.3.2/S3.3.3/ S3.3.4/S3.3.5/S3.3.6/ S3.4.1/S3.4.2/S3.4.3/S3.4.4	2-25/416-1/416-2/417-1/417-3	B6.1/B6.2/B6.3/B6.4.B6.5
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	Responding to Climate Change	E1.1.1/E1.1.2/E1.1.3/E1.1.4/ E1.1.5/E1.1.6/E1.1.7/E1.1.8/ E1.1.11/E1.1.13/E1.1.14/E1.1.16/ E1.1.19	201-2/305-1/305-2/305-4/305-5	Part D: Climate-related Disclosures
	Erecting a Firm Safety Defense Line	S4.2.1/S4.2.2/S4.2.4/S4.2.6	403-1/403-2/403-5/403-7	B2.3

Level 1 heading	Level 2 heading	Guidelines on Corporate Sustainability Reporting for Chinese Enterprises (CASS-ESG6.0)	Global Reporting Initiative (GRI) Sustainability Reporting Standards	Environmental, Social and Governance Reporting Code of the Stock Exchange of Hong Kong Limited (HKEX ESG Code)
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Report Rating

Entrusted by China Resources Building Materials Technology Holdings Limited, Chinese Expert Committee on CSR Report Rating selected experts to form a rating team to rate the CR Bldg Materials Tech 2024 Sustainability Report (hereinafter referred to as the "Report").

I . Rating Basis

The Guidelines on Corporate Sustainability Reporting for Chinese Enterprises (CASS-ESG 6.0) by the China Enterprise Reform and Development Society and the CSR Cloud Research Institute, and the Standards for Chinese Enterprise Sustainability Report Ratings (2025) by the Chinese Expert Committee on CSR Report Rating.

II . Rating Process

- 1.The rating team reviewed and confirmed the Confirmation of Procedural and Accessibility Evaluation Data of Corporate CSR Reports and relevant supporting materials submitted by the writing team of the Report;
- 2.The rating team evaluated the preparation process and content of the Report and formulated the rating report;
- 3.The Vice Chairman of Chinese Expert Committee on CSR Report Rating, the leader of the rating team and the experts of the rating team jointly sign and review the rating report.

III. Rating Conclusion

Process (★★★★★)

The Board of Directors serves as the highest working and decision-making body for ESG matters, shouldering full responsibility for the Company's ESG strategy and reporting. To effectively promote the standardization and normalization of sustainability efforts, the Company has established the Corporate Culture and Social Responsibility Guidance Committee and its office, alongside the Sustainability Report Compilation Committee. The report is positioned to meet compliance disclosure requirements, enhance sustainability management, communicate the Company's sustainability brand image, disclose corporate responsibility performance, respond to capital market expectations, and strengthen stakeholder engagement, demonstrating clear functional value. Material topics are identified by referencing national macro policies, domestic and international indicator systems, industry benchmarking analyses, corporate development strategies, major company events, and stakeholder surveys. By embedding sustainability principles and revising relevant systems, the Company continuously improves the management standards. The publication of electronic, printed, bilingual (Chinese and English), and infographic versions of the Report establishes a multi-level, multi-channel, and multi-format reporting system, showcasing excellent process-driven performance.

Substantiality (★★★★★)

The Report provides a systematic disclosure of key industry-specific topics, including responding to climate change, pollutant emissions, waste treatment, energy conservation, resource-efficient products, technological innovation, sustainable supply chains, product and service safety and quality, employee rights protection, occupational health and safety, and community engagement. With detailed and comprehensive narratives, it demonstrates excellent substantive performance.

Integrity (★★★★★)

The Report systematically discloses 92.31% of the core indicators for the non-metallic mineral products industry, covering themes such as "Pursuing Ambitions, Forging Lasting Success Through Perseverance and Resilience", "Embracing Virtue for Lasting Impact, Nurturing Progress to Shape a Better Future", and "Stepping Towards Green, Building Eco-friendly Home Through Low-carbon Development". Its comprehensive coverage demonstrates excellent completeness.

Balance (★★★★★)

The Report discloses negative data, including "number of work injury accidents", "number of accidents at general and above level", "number of deaths in accidents", and "death rate per thousand employees in accidents". It also provides a detailed account of measures taken to address persistent complaints caused by issues such as prolonged inventory buildup and transportation problems, demonstrating excellent balance in its approach.

Comparability (★★★★★)

The Report discloses comparative data for three consecutive years on 160 key indicators, including "total R&D investment", "number of anti-corruption training", "R&D investment", "comprehensive energy consumption", "investment in technological transformation for energy saving and emission

reduction", and "direct greenhouse gas emissions". It also provides cross-sectional comparisons, such as ranking 5th in the "2024 Comprehensive Strength Ranking of China Cement Listed Companies" by the China Cement Association and 13th in CCTV's Top 100 Pioneering ESG Listed Companies in China list, showcasing excellent comparability.

Readability (★★★★★)

The Report employs the Triple Bottom Line framework to systematically present CR Bldg Materials Tech's responsibilities and achievements in governance, environment, and society, with a clear structure highlighting key issues. It features a Milestones in 2024 section, focusing on the Company's annual responsibility practices, thus demonstrating leadership in corporate accountability and contemporaneity in report content. By embedding QR codes, the Report extends into multimedia formats, enhancing readability and engagement. The cover design vividly reflects the Report's theme, amplifying the dissemination of the company's responsibility philosophy and showcasing its vision and mission. By presenting corporate responsibility achievements through stakeholder statements, the Report strengthens its communicative impact and credibility, achieving excellent readability.

Innovativeness (★★★★★)

In the Report, the company included sections on innovation, dual carbon goals, and rural revitalization, actively aligning with national policies and spotlighting key areas of corporate responsibility, thus demonstrating the company's commitment to social duty. Also, it introduced a sustainability philosophy, revised related regulations, and devised a framework for building a sustainability organizational system, further enhancing the sustainability management framework. By encouraging its subordinates to publish their own reports in the operate regions, the company established a comprehensive "master report + regional reports" system, significantly improving the systematic approach to sustainability efforts and showcasing excellent innovation.

Comprehensive rating (★★★★★+)

According to the evaluation of the rating team, the CR Bldg Materials Tech 2024 Sustainability Report achieved a Five Star rating in process, substantiality, integrity, balance, comparability, readability, and innovativeness. Overall, it is rated as "Five Star Excellence", which is an excellent ESG report.



CR Bldg Materials Tech Sustainability Report received a Five Star rating for the fifth consecutive year and received a Five Star Top-notch rating for the second consecutive year

IV Suggestions for improvement

- 1.Increase the disclosure of industry core indicators to further enhance the integrity of the report.

Signature of Vice Chairman of the Chinese Expert Committee on CSR Report Rating

Vice Chairman of the Chinese Expert Committee on CSR Report Rating

Signature of Rating Team Leader

Rating Team Leader

Signature of Rating Team Expert

Rating Team Expert

Issuance date: April 24, 2025



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the electronic version



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