
INDUSTRY OVERVIEW

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Analysis of Global and China’s Electrolytic Copper Foil Industry

Electrolytic copper foil is an advanced material composed predominantly of copper, serving as a critical supporting component in the new energy and electronic information industries. Currently, electrolytic copper foil can be categorized into two main types based on downstream applications: lithium battery copper foil and electronic circuit copper foil. These function respectively as the anode for lithium-ion batteries and the conductive substrate for printed circuit boards (PCBs).

Overview of the Lithium Battery Market

Lithium batteries, as an efficient and rechargeable energy storage device, serve as a core foundation supporting the energy transition in electric transportation, new power systems, and other fields. Based on application scenarios, lithium batteries can be mainly categorized into three types: power batteries, energy storage batteries, and consumer electronics batteries.

The global trend toward vehicle electrification and the growing demand for energy storage have driven significant growth in the lithium battery market. In 2021, the total global shipment volume of lithium batteries was 536.1 GWh, which increased to 2,278.9 GWh by 2025, representing a CAGR of 43.6%. Power batteries accounted for the largest share, representing 65.7% of the lithium battery market in 2025. Energy storage batteries experienced the fastest growth, with a CAGR of 100.3% from 2021 to 2025. By 2030, the total global shipment of lithium batteries is expected to reach 6,420.2 GWh, growing at a CAGR of 21.0% from 2026 to 2030.

As the core component supporting the electrification of transportation tools, the shipment volume of power batteries is expected to increase from 1,969.2 GWh in 2026 to 4,386.1 GWh in 2030, with a CAGR of 22.2%, continuing to dominate the lithium battery market. In the future, the rapid development of emerging industries such as drones, eVTOL, and embodied robotics, along with the accelerated electrification of transportation vehicles including construction machinery, agricultural equipment, and ships, will bring new growth momentum to the power battery sector. Benefiting from the continuing advancement of renewable energy, coupled with the robust demand for ESS, the shipment volume of energy storage batteries is projected to rise from 851.9 GWh in 2026 to 1,704.3 GWh in 2030, with a CAGR of 18.9%. The growth of consumer electronics batteries is primarily driven by AI technology, with shipments expected to increase from 177.3 GWh in 2026 to 329.8 GWh in 2030, achieving a CAGR of 16.8%.

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As the world’s largest lithium battery market, China accounted for 63.2% of global shipments in 2025, with total lithium battery shipment volume grew from 261.3 GWh in 2021 to 1,441.1 GWh in 2025, representing a CAGR of 53.2%. Power batteries held the largest share, representing 78.7% of China’s lithium battery market in 2025. Energy storage batteries experienced the fastest growth in shipments, with a CAGR of 141.4% from 2021 to 2025. Benefiting from sustained growth in vehicle electrification and energy storage demand, China’s total lithium battery shipments are expected to reach 3,874.0 GWh by 2030, growing at a CAGR of 21.8% from 2026 to 2030.

The shipment growth of power batteries benefits from China’s leadership position in global new energy vehicles industry. Shipment volume of power batteries is projected to increase from 1,369.0 GWh in 2026 to 3,060.4 GWh in 2030, with a CAGR of 22.3%. Driven by the domestic demand for construction of new power systems, energy storage batteries will continue to be the fastest-growing segment. The shipments are expected to rise from 328.3 GWh in 2026 to 687.8 GWh in 2030, achieving a CAGR of 20.3%. Supported by the upgrading of China’s consumer electronics industry and the penetration of AI devices, consumer electronics battery shipments are forecasted to grow from 65.2 GWh in 2026 to 125.8 GWh in 2030, representing a CAGR of 17.9%.

Overview of the Printed Circuit Board (PCB) Market

As a core material in the electronics industry, printed circuit board (PCB) supports the development of electronic products toward higher performance, miniaturization, and intelligence. By downstream application scenarios, its downstream applications can be broadly categorized into five types: AI and high-performance computing application, 5G/6G network communication, automotive electronics, consumer electronics, and other application.

Driven by downstream demands such as development of AI and vehicle electrification, and consumer electronics iteration, the global PCB market has maintained a growth trajectory from 2021 to 2030. In 2021, the global PCB market was valued at RMB547.7 billion, increasing to RMB598.5 billion by 2025, with a CAGR of 2.2%. Consumer electronics PCBs accounted for the largest share, representing 45.1% of the PCB market in 2025. PCBs for AI and computing applications experienced the fastest growth, with a CAGR of 40.6% from 2021 to 2025. By 2030, the global PCB market is expected to reach RMB1,088.0 billion, growing at a CAGR of 12.2% from 2026 to 2030.

The AI and computing PCB market will continue to benefit from the expansion of AI computing power. Its market size is projected to grow from RMB124.4 billion in 2026 to RMB458.4 billion by 2030, with a CAGR of 38.6%. The growth of the network communication PCB market is primarily driven by 5G network construction and communication equipment upgrades. The market size is projected to increase from RMB 96.9 billion in 2026 to RMB 135.3 billion by 2030, representing a CAGR of 8.7%. Automotive electronics PCBs benefit from the continued release of demand for PCBs related to intelligent driving from new energy vehicles. The market size is projected to grow from RMB 74.1 billion in 2026 to RMB 82.6 billion in 2030, representing a CAGR of 2.8%. As the largest segment, consumer electronics PCBs mainly support the upgrade needs of smartphones, wearable devices, and other terminals. The market size is projected to grow from RMB 291.3 billion in 2026 to RMB 316.9 billion in 2030, representing a CAGR of 2.1%. Other application PCBs, including those used in medical, industrial control, and aerospace fields, are projected to grow from RMB 99.0 billion in 2026 to RMB 94.7 billion in 2030, representing a CAGR of -1.1%.

As the world’s largest PCB market, China accounted for 54.3% of the global market size in 2025. The Chinese PCB market grew from RMB297.0 billion in 2021 to RMB325.2 billion in 2025, with a CAGR of 2.3%. Consumer electronics PCBs held the largest share, representing 37.2% of the PCB market in 2025. PCBs for AI and computing applications experienced the fastest growth, achieving a CAGR of 31.8% from 2021 to 2025. By 2030, the Chinese PCB market is expected to reach RMB492.6 billion, growing at a CAGR of 8.3% from 2026 to 2030.

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The market size of AI and computing application PCBs is projected to grow from RMB54.1 billion in 2026 to RMB157.2 billion by 2030, with a CAGR of 30.6%, making it the fastest-growing core market. The automotive electronics PCB market, benefiting from the localization of new energy vehicles production, is expected to grow from RMB 54.0 billion in 2026 to RMB 59.5 billion in 2030, representing a CAGR of 2.5%. As the largest segment by current size, the consumer electronics PCB market is projected to grow from RMB 135.0 billion in 2026 to RMB 148.0 billion in 2030, with a CAGR of 2.3%. The market size of other application PCBs is projected to grow from RMB 67.9 billion in 2026 to RMB 76.5 billion in 2030, representing a CAGR of 3.0%.

Electrolytic Copper Foil Market Overview

Electrolytic copper foil is a metal foil material produced by electrolyzing a copper sulfate solution to deposit copper ions on the cathode. The original foil undergoes a series of surface treatments to enhance its performance based on specific application scenarios, and is ultimately slit into finished products. It serves as an indispensable key foundational material in fields such as new energy lithium batteries and the electronic information industry. Based on the core performance requirements of downstream application scenarios, electrolytic copper foil is mainly classified into two categories: lithium battery (LIB) copper foil and electronic circuit copper foil. By thickness, LIB copper foil can be divided into extreme ultra-thin foil ($<6\mu\text{m}$) and ultra-thin foil ($6\text{--}10\mu\text{m}$); Furthermore, tensile strength and elongation are critical physical indicators for lithium battery copper foil, reflecting its resistance to fracture and deformability. High strength coupled with good ductility ensures that downstream products are less prone to breakage during both manufacturing and use. Electronic circuit copper foil can be categorized into thin foil ($10\text{--}18\mu\text{m}$), conventional foil ($>18\text{--}70\mu\text{m}$), and thick foil ($>70\mu\text{m}$). The lower surface roughness of electronic circuit copper foil enables smoother current flow across the copper surface, reducing scattering and reflection, thereby lowering signal transmission loss.

High-performance LIB copper foil generally refers to products that meet at least one of the following criteria: thickness $<6\mu\text{m}$, tensile strength $\geq 400\text{MPa}$, or elongation $\geq 10\%$. The reduction in thickness of lithium battery copper foil decreases the weight and volume proportion of the current collector within the battery cell, thereby creating more storage space for active materials and effectively enhancing the energy density of the cell. This advancement expands application scenarios requiring extended range and lightweight design. Furthermore, improvements in physical properties such as tensile strength and elongation contribute significantly to production and performance. On one hand, they mitigate the risk of wrinkling during the coating process of battery electrodes, reduce the likelihood of tape breakage in manufacturing, and enhance both production efficiency and yield. On the other hand, superior tensile strength strengthens the electrode's resistance to deformation during charge-discharge cycles, while excellent elongation minimizes the risk of electrode fracture over repeated cycling. Together, these attributes contribute to extended battery cycle life and improved safety performance.

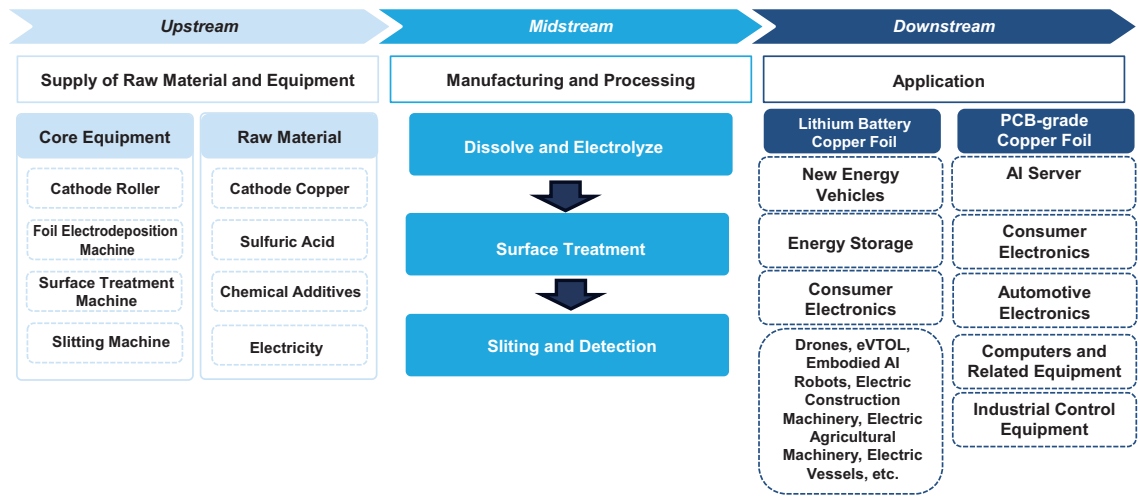
High-performance PCB copper foil generally refers to products, which feature ultra-low surface roughness, high peel strength and excellent high-frequency signal transmission performance, such as RTF and HVLP. The reduction in copper foil surface roughness and profile minimizes signal transmission loss at high frequencies, thereby improving signal integrity and enabling reliable high-speed data transmission. Carrier copper foil is also a high-performance PCB copper foil product, which enables the fabrication of ultra-fine circuits and high-density interconnections in advanced PCBs. These products are primarily used in high-end applications such as AI servers, high-speed networking equipment, 5G/6G communications and advanced IC substrates.

The industrial chain of electrolytic copper foil mainly consists of three segments: upstream (supply of raw materials and equipment), midstream (manufacturing and processing), and downstream (application fields). The upstream segment focuses on core equipment and raw materials, including cathode rollers, foil electrodeposition machine, surface treatment machines, slitting machines, as well as cathode copper, sulfuric acid, chemical additives, and electricity. These elements determine the quality

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of downstream electrolytic copper foil. The midstream segment involves foil manufacturing and processing, covering the dissolution of cathode copper into a copper sulfate solution, electrolysis, differentiated treatments based on downstream applications (such as anti-oxidation and roughening), as well as slitting and quality inspection. The downstream segment includes two major application areas: LIB copper foil and PCB-grade copper foil. Both terminal application markets exhibit diversified characteristics and potential for rapid cross-industry growth.

Industrial Chain of Electrolytic Copper Foil



Source: Public Information Collation, Frost & Sullivan

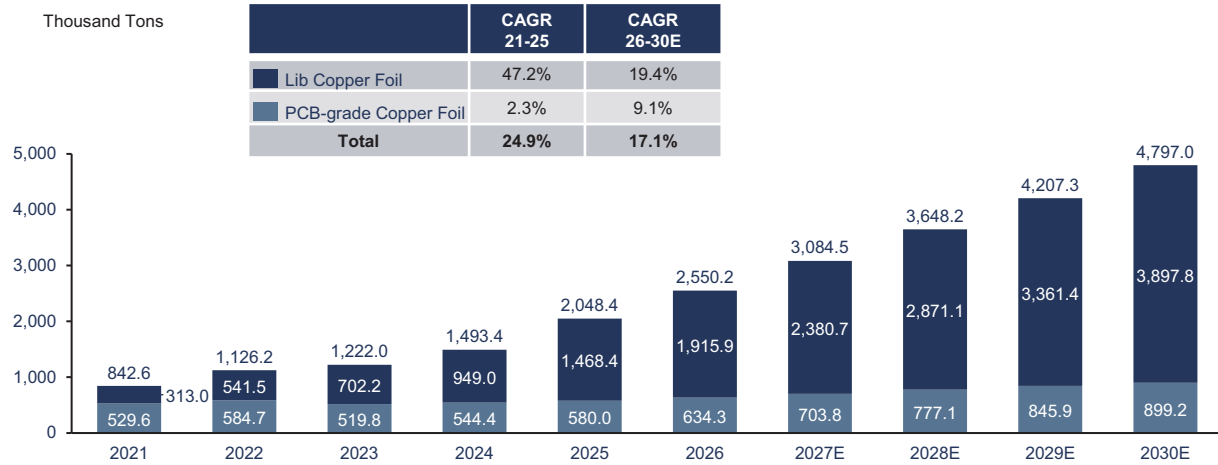
Global and China’s Electrolytic Copper Foil Market Size

The global sales volume of electrolytic copper foil increased from 842.6 thousand tons in 2021 to 2,048.4 thousand tons in 2025, with a CAGR of 24.9%. During the forecast period, the global sales volume is expected to further grow to 4,797.0 thousand tons by 2030, representing a CAGR of 17.1% from 2026 to 2030. The sales volume of LIB copper foil reached 1,468.4 thousand tons in 2025 and is projected to rise to 3,897.8 thousand tons by 2030, achieving a CAGR of 19.4% from 2026 to 2030. Meanwhile, the sales volume of PCB-grade copper foil is anticipated to increase from 580.0 thousand tons in 2025 to 899.2 thousand tons in 2030, with a CAGR of 9.1% from 2026 to 2030.

The growth in global sales volume of electrolytic copper foil is primarily driven by the rapid development and strong demand from downstream industries such as new energy and electronic information. In particular, the sales of LIB copper foil have surged, fueled by the growing demand for NEV, ESS, drones, eVTOL, embodied robots, electric construction machinery, electric agricultural machinery, electric vessels and other end-user applications. Rapid advancements in sectors such as telecommunications, data centers, AI and high-performance computing, IoT, and automotive electronics are also fueling the need for high-performance, high-density PCBs and PCB-grade copper foil.

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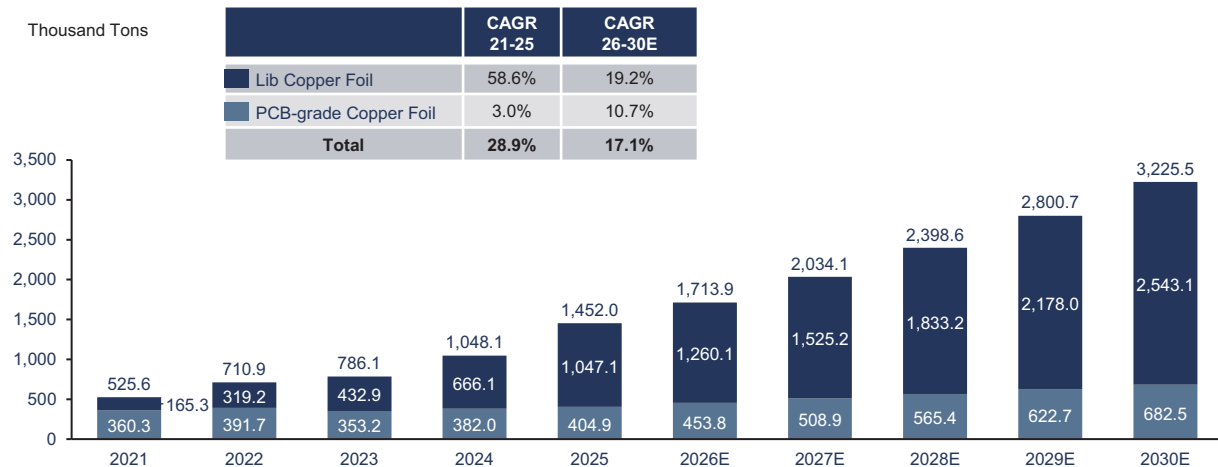
Sales Volume of Electrolytic Copper Foil (By Application), Global, 2021-2030E



Source: CCFA, Frost & Sullivan

The sales volume of electrolytic copper foil in China rose from 525.6 thousand tons in 2021 to 1,452.0 thousand tons in 2025, with a CAGR of 28.9%. Looking ahead, China’s sales volume is expected to reach 3,225.5 thousand tons by 2030, growing at a CAGR of 17.1% from 2026 to 2030. In 2025, the sales volume of LIB copper foil in China was 1,047.1 thousand tons, and it is projected to increase to 2,543.1 thousand tons by 2030, with a CAGR of 19.2% from 2026 to 2030. The sales volume of PCB-grade copper foil in China is expected to grow from 404.9 thousand tons in 2025 to 682.5 thousand tons in 2030, achieving a CAGR of 10.7% from 2026 to 2030.

Sales Volume of Electrolytic Copper Foil (By Application), China, 2021-2030E



Source: CCFA, Frost & Sullivan

The global market size of electrolytic copper foil expanded from RMB70.2 billion in 2021 to RMB179.9 billion in 2025, with a CAGR of 26.5%. It is forecast to further grow to RMB449.2 billion by 2030, maintaining a CAGR of 18.7% from 2026 to 2030. The global market size of LIB copper foil was RMB128.4 billion in 2025 and is expected to reach RMB364.4 billion by 2030, with a CAGR of 21.1% from 2026 to 2030. The market size of PCB-grade copper foil is projected to increase from

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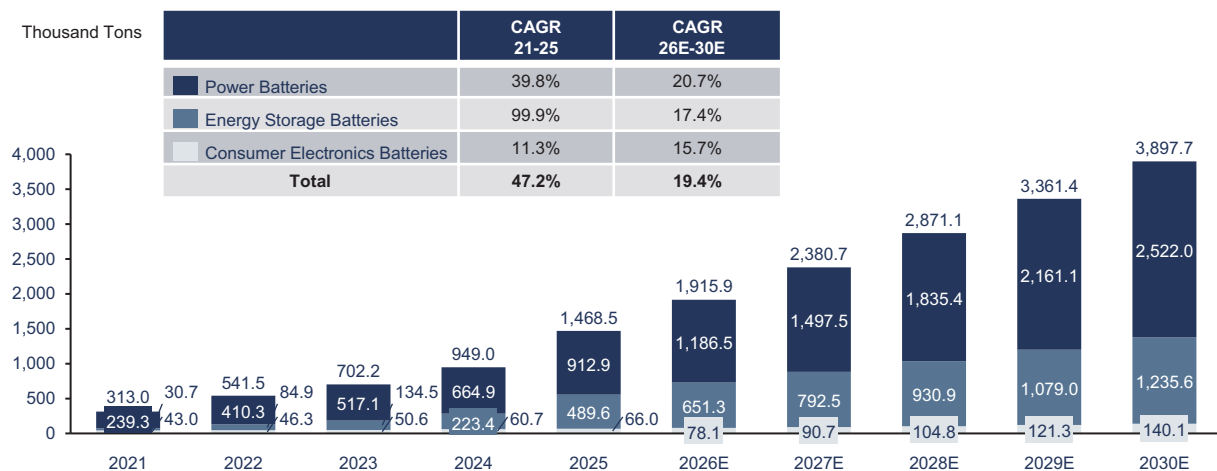
RMB51.5 billion in 2025 to RMB84.8 billion in 2030, representing a CAGR of 10.5% from 2026 to 2030. The synchronized high growth of end-user applications — including AI and high-performance computing, drones, eVTOL, embodied AI robots, electric construction machinery, electric agricultural machinery, and electric vessels — as well as NEV, ESS, and 5G/6G communication, coupled with continuous technological upgrades, is driving the steady expansion of the global electrolytic copper foil market, with lithium battery foil fueled by the booming new energy vehicle and energy storage sectors and electronic circuit foil benefiting from the advancement of AI and high-performance computing, 5G/6G communication, and humanoid robots.

China’s electrolytic copper foil market size grew from RMB42.2 billion in 2021 to RMB124.2 billion in 2025, with a CAGR of 30.9%. It is expected to reach RMB292.8 billion by 2030, growing at a CAGR of 18.5% from 2026 to 2030. The market size of LIB copper foil in China was RMB89.3 billion in 2025 and is projected to rise to RMB230.4 billion by 2030, with a CAGR of 20.7% from 2026 to 2030. Additionally, the market size of PCB-grade copper foil in China is anticipated to increase from RMB34.9 billion in 2025 to RMB62.4 billion in 2030, achieving a CAGR of 12.1% from 2026 to 2030.

Global and China’s LIB Copper Foil Market Size

Power battery copper foil holds the largest share of the electrolytic copper foil market. The global sales volume of power battery LIB copper foil increased from 239.3 thousand tons in 2021 to 912.9 thousand tons in 2025, with a CAGR of 39.8%. During the forecast period, the global sales volume of power battery LIB copper foil is expected to further grow to 2,522.0 thousand tons by 2030, representing a CAGR of 20.7% from 2026 to 2030. The global sales volume of energy storage battery copper foil rose from 30.7 thousand tons in 2021 to 489.6 thousand tons in 2026, with an impressive CAGR of 99.9%. Looking ahead, the global sales volume of energy storage battery copper foil is projected to reach 1,235.6 thousand tons by 2030, maintaining a high CAGR of 17.4% from 2026 to 2030.

Sales volume of LIB Copper Foil (By Application) , Global, 2021-2030E

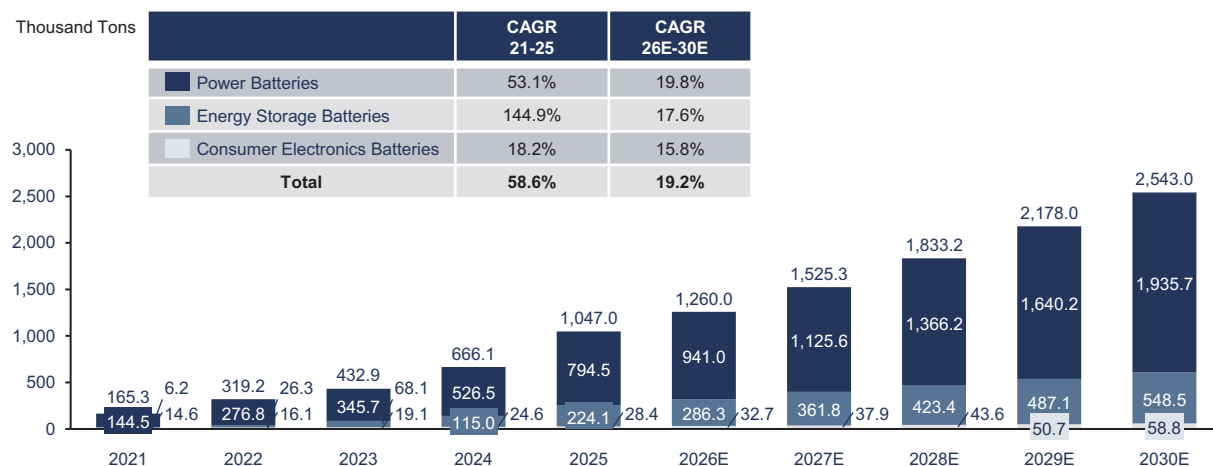


Source: CCFA, Frost & Sullivan

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The sales volume of power battery LIB copper foil in China increased from 144.5 thousand tons in 2021 to 794.5 thousand tons in 2025, with a CAGR of 53.1%. In the forecast period, China’s sales volume of power battery LIB copper foil is expected to further grow to 1,935.7 thousand tons by 2030, achieving a CAGR of 19.8% from 2026 to 2030. The sales volume of energy storage battery copper foil in China surged from 6.2 thousand tons in 2021 to 224.1 thousand tons in 2025, with an extraordinary CAGR of 144.9%. It is anticipated to reach 548.5 thousand tons by 2030, with a CAGR of 17.6% from 2026 to 2030.

Sales volume of LIB Copper Foil (By Application), China, 2021-2030E



Source: CCFA, Frost & Sullivan

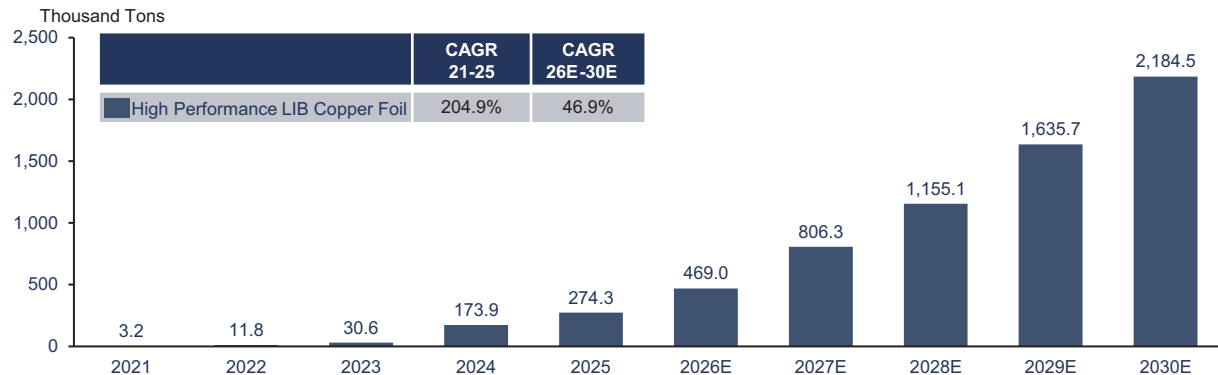
The global market size of LIB copper foil expanded from RMB28.0 billion in 2021 to RMB128.4 billion in 2025, with a CAGR of 46.3%. It is expected to further grow to RMB364.4 billion by 2030, maintaining a CAGR of 21.1% from 2026 to 2030. The global market size of power battery copper foil was RMB80.8 billion in 2025 and is projected to rise to RMB236.3 billion by 2030, with a CAGR of 22.1% from 2026 to 2030. Meanwhile, the global market size of energy storage battery copper foil is expected to increase from RMB41.4 billion in 2025 to RMB113.2 billion in 2030, representing a CAGR of 19.3% from 2026 to 2030.

China’s market size of LIB copper foil grew from RMB14.4 billion in 2021 to RMB89.3 billion in 2025, with a remarkable CAGR of 57.7%. It is forecast to reach RMB230.4 billion by 2030, with a CAGR of 20.7% from 2026 to 2030. The market size of power battery copper foil in China was RMB68.3 billion in 2025 and is expected to grow to RMB176.1 billion by 2030, achieving a CAGR of 21.1% from 2026 to 2030. Additionally, the market size of energy storage battery copper foil in China is projected to increase from RMB18.4 billion in 2025 to RMB48.3 billion in 2030, with a CAGR of 19.3% from 2026 to 2030.

The sales volume of China’s high performance LIB copper foil was 274.3 thousand tons in 2025 and are projected to rise to 2,184.5 thousand tons by 2030, achieving a CAGR of 46.9% from 2026 to 2030. The growth in the sales volume of China’s high performance LIB copper foil was driven by the fast-growing EV, energy storage, low-altitude economy, and embodied AI robot sectors, coupled with the battery industry’s ongoing technological shift towards thinner foil specifications (e.g., 5μm and below) to achieve higher energy density.

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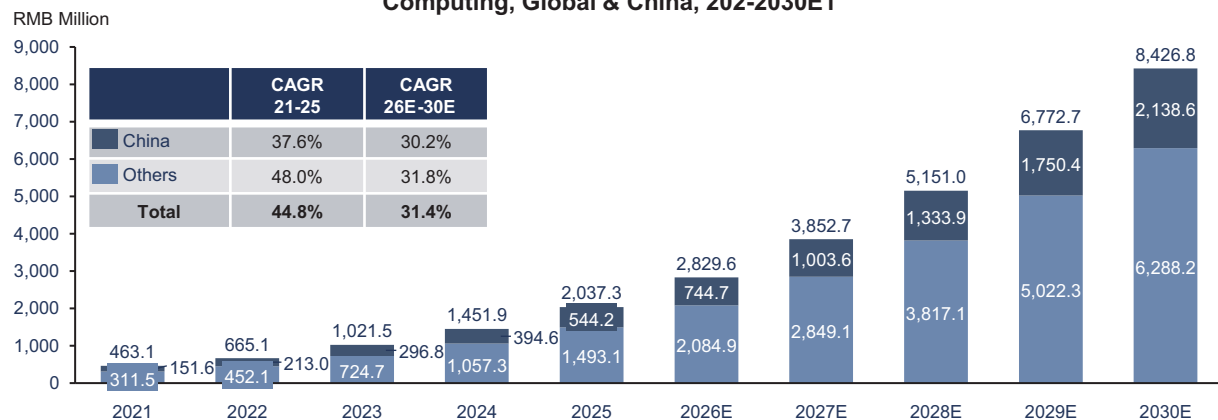
Sales Volume of High-Performance LIB Copper Foil, China, 2021-2030E



Source: Expert Interviews, Frost & Sullivan

The global market size of PCB-grade copper foil for AI and high-performance computing increased from RMB463.1 million in 2021 to RMB2,037.3 million in 2025, with a CAGR of 44.8%. During the forecast period, it is expected to further grow to RMB8,426.8 million by 2030, with a CAGR of 31.4% from 2026 to 2030. China's market size of PCB-grade copper foil for AI and high-performance computing rose from RMB151.6 million in 2021 to RMB544.2 million in 2025, with a CAGR of 37.6%. It is projected to reach RMB2,138.6 million by 2030, maintaining a CAGR of 30.2% from 2026 to 2030. The rapid development of AI infrastructure is driving strong demand for high-performance copper foil. As AI and high-performance computing, networking equipment evolve toward higher computing power, bandwidth and power density, PCB designs increasingly require ultra-low-profile, high-frequency and high-speed copper foil to reduce signal loss and improve transmission performance.

Market Size of PCB-grade Copper Foil for Artificial Intelligence and High-Performance Computing, Global & China, 202-2030E1



Source: Frost & Sullivan

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Global Market Drivers of Electrolytic Copper Foil

Dual-Wheel Drive from New Energy Vehicles and Energy Storage Demand: The new energy vehicle industry is developing at a high speed, continuously expanding the power battery market. Energy storage batteries are in a phase of rapid expansion: the massive grid integration of wind and solar generation, coupled with AI data centers’ demand for power stability, has triggered explosive market growth. Both shipments and installed capacity have hit all-time highs, with lithium-based “new-type” storage leading the surge. To improve battery energy density, the industry is accelerating the adoption of ultra-thin high-performance copper foils with a thickness of 5μm or less. Meanwhile, the demand for energy storage systems supporting wind and photovoltaic power has exploded, becoming the second growth pole driving the demand for copper foil. Its requirements for long lifespan and high safety are propelling the industrialization of next-generation copper foil technology.

High-performance Demand Led by 5G/6G, AI and High-performance Computing Infra Update: The high-performance upgrade of the electronic information industry constitutes another core driving force. The construction of 5G/6G communication networks, expansion of data centers, and growth in AI computing power have placed extremely high demands on the signal transmission performance of PCBs. High-performance electronic circuit copper foil features ultra-low surface roughness, delivering outstanding signal-transmission performance, low insertion loss, and exceptional stability. As the core specialty material for ultra-low-loss, high-frequency/high-speed substrates, it is widely deployed in 5G/6G communications and AI infrastructures, opening up additional market space.

Technological Progress and Performance Breakthroughs of Copper Foil: Advances in materials technology themselves are a key driver of new demand. The thickness and performance of lithium-ion copper foil directly impact the driving range of new energy vehicles; thinner foil enhances energy density. Compared with 8μm copper foil, cells made with 6μm and 5μm foil deliver roughly 5% and 9% higher energy density, respectively. In the field of PCB copper foil, the maturity of new surface treatment technologies and low-profile copper foils has significantly improved signal transmission efficiency, enabling upgrades of downstream products. Technological advancements have lowered the application threshold for high-performance copper foils and created previously non-existent market demand.

Downstream Application Fields Continue to Expand: The expansion into emerging application scenarios is creating new demand drivers for the electrolytic copper foil market. Beyond traditional EVs and energy storage, embodied AI robots require lightweight, high-power-density battery packs to support extended mobility and rapid charging cycles. Low altitude electric aircraft (eVTOLs) and humanoid robot demand ultra thin, high strength copper foil to maximize energy density while meeting stringent weight constraints for flight endurance. Meanwhile, electrified marine vessels, from inland cargo ships to offshore service craft, are transitioning to electric propulsion systems, each requiring substantial copper foil volumes for their large format battery modules.

Global Development Trends of Electrolytic Copper Foil

Lithium Battery Copper Foil is Becoming Thinner: High-performance applications, including premium electric vehicles, low-altitude aircraft, and advanced consumer electronics, demand longer range, driving the need for higher energy density in batteries. Using thinner copper foil has thus become a critical approach. It not only reduces battery weight and frees up space for more active material boosting energy density, but also helps battery manufacturers cut costs amid rising global copper prices.

Lithium Battery Copper Foil High Performance Demand: Enhancing key mechanical properties — such as tensile strength, elongation, and folding endurance — enables compatibility with high-expansion anode materials, fast-charging and safety demand. This ensures structural and electrochemical stability under higher energy density, longer cycle life, and more stringent operating conditions.

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PCB-grade Copper Foil is Continuously Reducing Roughness: With the rapid development of AI and high-performance computing and 5G/6G communication, the demand for high-frequency, high-speed circuit boards is increasing. To reduce high-frequency signal attenuation caused by the skin effect, copper foil must further lower its surface roughness(profile) while maintaining excellent peel strength simultaneously.

Vertical Integration of the Industrial Chain and Horizontal Business Expansion: To enhance supply chain stability and overall competitiveness, leading copper foil manufacturers are accelerating industry chain integration. Vertically, some companies are extending upstream into raw material segments such as copper wire rods and cathode copper. Horizontally, leading enterprises strategies expanding products into cutting-edge application, such as current collector in solid/solid-liquid hybrid battery, as well as electronic circuits copper foil with ultra-low profile for AI hardware. This diversified strategy layout not only disperses the risks from single market but also enables companies to seizes the key position in next-generation technology through technological synergies.

The Market Competitiveness of China’s Electrolytic Copper Foil Manufacturers Continues to Strengthen: With the world’s largest lithium-ion battery market and the fastest pace of technological iteration, China has created the strongest demand for technological upgrades and the most rapid feedback mechanisms for upstream copper foil current collectors. This “virtuous cycle” within the industrial ecosystem is enabling Chinese copper foil companies to gain a competitive edge in the global market. In the field of electronic circuit copper foil, the implementation of more application scenarios provides clear direction and sustained momentum for the company’s R&D in this area.

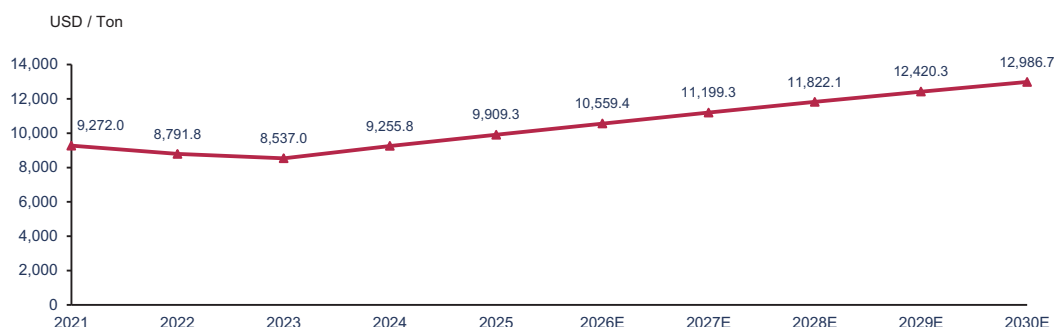
Sustainable Development Drives Innovation in Green Production Processes: Against the backdrop of global carbon neutrality goals and increasingly stringent environmental regulations, green production has become an irreversible industry trend. The greening of the production process reduces energy consumption and emissions by improving electrolyte formulations, recycling wastewater and waste heat, and using recycled copper and renewable energy for electricity.

Analysis of Electrolytic Copper Foil Raw Material Prices

The primary raw material for electrolytic copper foil is copper. Copper prices rose significantly between 2020 and 2021, mainly driven by strong demand from global loose monetary policies and sustainable transformation. Subsequently, prices fluctuated due to weakened demand caused by interest rate hikes and the slowdown in global economic growth.

The global average copper settlement price increased from USD 9,272.0 per ton in 2021 to USD 9,909.3 per ton in 2025. During the forecast period, it is expected to further grow to USD 12,986.7 per ton by 2030.

Average Copper Settlement Price, Global, 2021-2030E

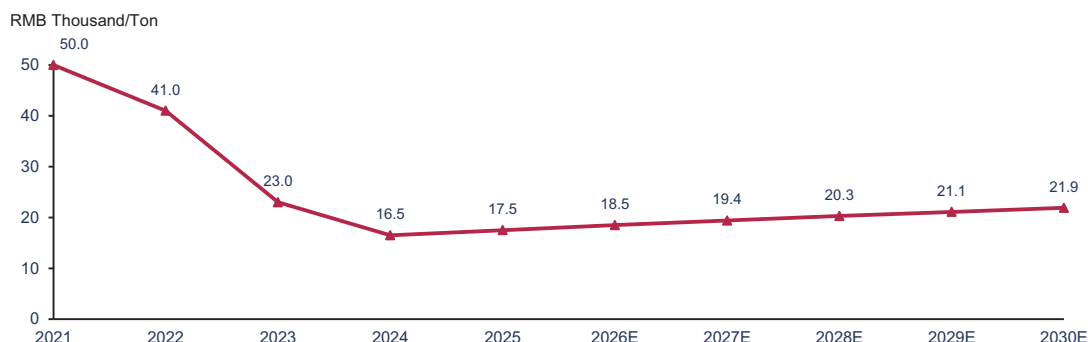


Source: LME, Frost & Sullivan

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Our electrolytic copper foil products are priced using a “copper price plus processing fee model”. Under this model, the benchmark copper price component is typically passed through to our customers, thereby largely insulating our gross profit from direct copper price volatility.

Average Processing Fee of Electrolytic Copper Foil, China, 2021-2030E



Note: 6μm Lithium Battery Copper Foil

Source: Frost & Sullivan

Competitive Landscape Analysis of Global and China’s Electrolytic Copper Foil Industry

In 2025, the Company ranked the tenth in terms of the sales volume and sales revenue of global electrolytic copper foil industry, with sales of 48.1 thousand tons of electrolytic copper foil and with a revenue of RMB4.2 billion. In 2025, the global electrolytic copper foil market was fragmented, with the top ten manufacturers holding about 42.1% share. The rest was spread among many other players, and no single dominant leader has emerged, reflecting a balanced competitive landscape.

Ranking of Electrolytic Copper Foil Suppliers (by Sales Volume), Global, 2025

Rank	Company Name	Sales Volume (Thousand Tons)	Market Share (%)
1	Company A	136.1	6.6%
2	Company B	122.2	6.0%
3	Company C	100.0	4.9%
4	Company D	98.3	4.8%
5	Company E	76.4	3.7%
6	Company F	75.6	3.7%
7	Company G	71.0	3.5%
8	Company H	69.7	3.4%
9	Company I	64.8	3.2%
10	The Company	48.1	2.3%
	Others	1,186.3	57.9%
	Total	2,048.4	100.0%

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Company A was established in 1985 and is headquartered in Jiujiang, Jiangxi Province, and was listed on the Shenzhen Stock Exchange in 2023.

Company B was established in 1996 and is headquartered in Shenzhen, Guangdong Province, and was listed on the New York Stock Exchange in 2026.

Company C was established in 2016 and is headquartered in Tongling, Anhui Province, and is not publicly listed.

Company D was established in 2001 and is headquartered in Meizhou, Guangdong Province, and was listed on the Shanghai Stock Exchange in 2019.

Company E was established in 1989 and is headquartered in Shenzhen, Guangdong province, and was listed on the Shanghai Stock Exchange in 1997.

Company F was established in 1988 and is headquartered in Hong Kong, and was listed on the Hong Kong Stock Exchange in 2006.

Company G was established in 2010 and is headquartered in Tongling, Anhui Province, and was listed on the Shenzhen Stock Exchange in 2022.

Company H was established in 2011 and is headquartered in Xiaogan, Hubei Province, and was listed on the Shenzhen Stock Exchange in 2022.

Company I was established in 2001 and is headquartered in Hangzhou, Zhejiang Province, and was listed on the Shenzhen Stock Exchange in 2008.

In 2025, the Company ranked the eighth in terms of the sales volume of Global LIB copper foil industry, with sales of 42.3 thousand tons of LIB copper foil.

Ranking of LIB Copper Foil Suppliers (by Sales Volume), Global, 2025

Rank	Company Name	Sales Volume (Thousand Ton)	Market Share (%)
1	Company B	112.0	7.6%
2	Company A	110.0	7.5%
3	Company C	94.3	6.4%
4	Company D	89.5	6.1%
5	Company E	60.8	4.1%
6	Company I	59.7	4.1%
7	Company H	53.9	3.7%
8	The Company	42.3	2.9%
9	Company J	34.7	2.4%
10	Company G	30.0	2.0%
	Others	781.2	53.2%
	Total	1,468.4	100.0%

Company J was established in 1996 and is headquartered in North Jeolla Province, South Korea, and is not publicly listed.

INDUSTRY OVERVIEW

In 2025, the Company, with sales of 32.9 thousand tons of high-performance LIB copper foil, ranked third in China market with a 12.0% market share. High-performance LIB copper foil features significant technological barriers and lengthy certification cycles. Leading manufacturers capture a larger market share due to their advantages in process technology and economies of scale, resulting in a higher market concentration compared to standard copper foil. The top five manufacturers collectively account for 66.4% of the market share.

Ranking of High-Performance LIB Copper Foil Suppliers (by Sales Volume), China, 2025

Rank	Company Name	Sales Volume (Thousand Ton)	Market Share (%)
1	Company B	48.0	17.5%
2	Company D	41.9	15.3%
3	The Company	32.9	12.0%
4	Company C	30.1	11.0%
5	Company A	29.1	10.6%
	Others	92.3	33.6%
	Total	274.3	100.0%

Global Electrolytic Copper Foil Industry Entry Barriers

Technology Barrier: The production of electrolytic copper foil requires comprehensive expertise in electrochemistry, material science, and precision control systems, with related technologies often relying on continuous technical accumulation and process optimization. To achieve a uniformly deposited ultra-thin copper layer and precisely control its surface morphology, mechanical strength, and thermal stability, companies must master strictly confidential additive formulas. When it comes to high-performance lithium battery copper foil, technical barriers become even more pronounced. In particular, to meet the requirements for high energy density and cycle life of batteries, finer control over the copper foil’s tensile strength, elongation rate, and surface microstructure is required, which often involves deeper process know-how. For electronic circuit copper foil, the core technical barrier lies in fine-tuning additives and surface treatment technologies to educe roughness while maintaining stable peel strength, thereby ensuring suitability for high-frequency and high-speed circuits.

Customer Base Barrier: One of the core barriers facing new entrants lies in the established customer relationships. To break into the market, they must pass the stringent qualification certifications of major clients. This is because, in demanding fields such as automotive and high-end electronics, supply chain relationships are highly stable, with trust built on long-term collaboration history. As a result, the time and resource costs for new entrants to prove product reliability and build cooperative trust are significant, making it difficult for them to gain a foothold in the short term.

Capital Barrier: Building a competitive electrolytic copper foil production line requires significant capital investment, as the industry relies on highly specialized equipment and customized production systems, whose costs cannot be overlooked. Meanwhile, raw material procurement accounts for a substantial proportion of operational expenses, placing ongoing demands on a company’s working capital. These initial and continuous capital requirements pose substantial financial challenges for new entrants.

INDUSTRY OVERVIEW

Talent Barrier: The R&D and production of electrolytic copper foil rely on interdisciplinary teams with backgrounds in fields such as electrochemistry and materials engineering. These teams not only require profound theoretical knowledge but also extensive practical experience in processes and on-site problem-solving. Core technical personnel in the industry typically undergo long-term training and hands-on project experience. However, the supply of such high-end talent is limited and predominantly concentrated in existing major enterprises, making it difficult for new entrants to assemble a cohesive and experienced technical team in the short term.

SOURCE OF INFORMATION AND RESEARCH METHODOLOGY

We engaged Frost & Sullivan for preparing an independent industry report in respect of the global and China’s electrolytic copper foil market. The information from Frost & Sullivan disclosed in this document is extracted from the Frost & Sullivan Report, a report commissioned by us for a fee of RMB500,000, and is disclosed with the consent of Frost & Sullivan. The Frost & Sullivan Report has been prepared by Frost & Sullivan independently without any influence from us or other interested parties. Frost & Sullivan is an independent global consulting firm founded in 1961 in New York. Its services include, among others, industry consulting, market strategic consulting and corporate training. Frost & Sullivan conducted (i) primary research, which involved discussing the status of the industry with certain leading industry participants, and interviews with industry experts on a best-effort basis to collect information in aiding in-depth analysis; and (ii) secondary research, which involved reviewing government statistics, industry association publication, company reports, independent research reports and data based on its own research database.