

## **Tin - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2026 - 2031)**

Market Report | 2026-02-09 | 120 pages | Mordor Intelligence

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### **Report description:**

Tin Market Analysis

Tin Market size in 2026 is estimated at 439.89 kilotons, growing from 2025 value of 429.24 kilotons with 2031 projections showing 497.1 kilotons, growing at 2.48% CAGR over 2026-2031. Structural tightness caused by Myanmar's political instability and supply risks in the Democratic Republic of Congo underpins price stability despite modest volume growth. The metal's by-product nature-where production depends on copper, lead, and zinc mining-magnifies price swings by nearly 50% versus primary metals and forces manufacturers to secure diverse sources. Asia-Pacific, home to China's electronics complex and Indonesia's smelters, absorbs close to seven-tenths of global demand and posts region-leading growth, while North American and European buyers accelerate local sourcing and recycling initiatives to cut exposure to supply disruptions.

Global Tin Market Trends and Insights

Growing Demand for Solder in Electronics

Electronics solder remained the largest application, accounting for 48.56% of 2024 consumption as manufacturers transitioned to lead-free alloys to meet RoHS mandates. Fifth-generation wireless infrastructure and smaller semiconductor packages drive higher tin loading per unit because advanced solder alloys require 95-99% purity rather than legacy 60-63% blends. The migration to silver sintering in high-temperature automotive modules limits solder growth in power electronics, yet leaves consumer devices largely dependent on tin. Stannic chloride chemical vapor deposition precursors for GeSn epitaxy create a niche, high-margin

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outlet that can influence electronic-grade tin prices. Localization programs in North America and Europe fuel investment in domestic solder production, tempering dependence on Asian suppliers while adding incremental tonnage to the tin market.

#### Rising Adoption in EV Power and Thermal-Management Components

Automotive demand for tin market volumes accelerates as electric-vehicle power electronics need thermally conductive alloys for inverters and battery packs. Modules using silicon carbide chips push junction temperatures higher, favoring copper-tin intermetallic bonding that withstands extreme thermal cycling. Transient liquid-phase joining consumes different feedstock grades than conventional solder, prompting alloy developers to refine purity levels and wetting characteristics. Department of Energy density targets of 100 kW/L by 2025 intensify interest in tin-rich solutions that manage heat while minimizing footprint. Premium pricing arises from stringent OEM qualification cycles, and the competitive balance between tin metallization and silver sintering will shape long-term penetration in high-performance EV segments across the global tin market.

#### Availability of Aluminium/ Zinc/Lead-Free Solder Substitutes

Silver sintering and aluminum wire bonding increasingly displace tin-based alloys in automotive power modules that operate above 175 C junction temperatures. Copper direct bonding and pressure-contact systems further reduce tin per device in high-reliability applications. Uptake, however, remains limited by capital cost, process complexity and lengthy automotive qualification cycles that favor legacy tin-rich solders. In consumer electronics, tin maintains a cost-performance sweet spot against pricier silver systems, preserving a large portion of tin market demand. Long-term competitive pressure will depend on process innovation that narrows cost gaps and enhances throughput for alternative metallization methods.

Other drivers and restraints analyzed in the detailed report include:

Expanding Use in Tin-Plating for Food and Beverage Cans Break-throughs in Lead-Free Tin-Based Perovskite Solar Cells Price Volatility from Artisanal and Conflict-Area Supply

For complete list of drivers and restraints, kindly check the Table Of Contents.

#### Segment Analysis

Alloys held 59.68% tin market share in 2025 as precise composition control underpinned widespread solder, bearing, and specialty-metal formulations. The alloy segment benefits from economies of scope because smelters can tailor tin-lead, tin-silver, and tin-copper blends without major capital outlays, sustaining margins even during volatile ore markets. The pure metal category recorded 99.95% purity output that caters to semiconductor, battery, and photovoltaic uses and is set to register a 3.05% CAGR through 2031, lifting its contribution to the overall tin market size.

Producers such as Aurubis leverage multimetal recycling streams to exceed 10,000 metric-ton annual refined tin capacity, recovering metal from anode sludge and complex scrap while meeting ISO 9001 and ISO 14001 certifications. Such integrated flows diversify supply, reduce Scope 3 emissions, and appeal to automakers that pursue net-zero value chains.

The Tin Report is Segmented by Product Type (Metal, Alloy, and Compounds), Application (Solder, Tin Plating, Chemicals, Lead-Acid Batteries, and Other Applications), End-User Industry (Automotive, Electronics, Packaging, Glass, and Other End-User Industries), and Geography (Asia-Pacific, North America, Europe, South America, and Middle-East and Africa). The Market Forecasts are Provided in Terms of Volume (Tons).

#### Geography Analysis

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Asia-Pacific dominated with 68.85% consumption in 2025, driven by China's electronics manufacturing and Indonesia's mining capacity. Regional tin market size growth at 3.12% CAGR leverages government incentives for electric-vehicle production in China and battery supply-chain build-out across the ASEAN bloc. Chinese concentrate output faced environmental curbs and resource depletion at Yunnan and Guangxi deposits, prompting smelters to import higher-grade ore, while Indonesia's PT Timah battled corruption probes that temporarily restricted exports.

North America's tin market advances on supply-chain security initiatives that reward domestic recycling. Aurubis invested USD 800 million in its Richmond, Georgia multimetal plant capable of processing 180,000 tons of complex scrap annually, ensuring a reliable supply for U.S. automotive and aerospace primes.

Europe shows mature yet sustainability-focused tin consumption. Germany leads uptake in EV power electronics, and Aurubis's Hamburg complex boosts high-purity supply through its Advanced Sludge Processing unit that refines anode mud into tin and specialty metals.

The Middle-East and Africa remains a minor consumer, although infrastructure expansion and nascent automotive assembly may lift demand incrementally. Political risks in the Democratic Republic of Congo restrain upstream investment despite sizable resource potential, keeping the region a swing factor in global tin market supply stability.

List of Companies Covered in this Report:

Andrada Mining ArcelorMittal Aurubis Beerse nv Avalon Advanced Materials Inc. Huaxi Nonferrous Metals Indium Corporation Jiangxi New Nanshan Technology Co. Ltd Malaysia Smelting Corporation Berhad Minsur Thailand Smelting & Refining Co. Ltd (Thaisarco) Timah YUNNAN TIN COMPANY GROUP LIMITED

Additional Benefits:

The market estimate (ME) sheet in Excel format  
3 months of analyst support

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