



RESPONSIBLY
PRODUCED
COPPER

RioTinto | **Kennecott**

Copper Cathode

At Rio Tinto Kennecott (RTK), we take pride in responsibly producing copper cathode, a primary raw material used in the production of semi-fabricated products such as copper wire rods for the wire and cable industry.

Copper is a crucial raw material used in electrification and clean energy infrastructure, and is essential for the transition to a low-carbon economy.

From mining the ore at the Bingham Canyon Mine to processing and producing it in our world-class smelter and refinery, we ensure that our cathode is subject to rigorous standards for quality. Our product meets the ASTM B-115 quality specifications, meaning that our cathodes are 99.99% pure copper.

Copper is found mainly in sulfide minerals and oxide minerals. At RTK, the primary source of copper comes from sulfide minerals, which are crushed before being sent to a concentrator. The concentrate is then pumped to our smelter where flash smelting and flash converting furnaces generate copper matte and copper blister. Anodes are then cast and sent to Kennecott's refinery. At the refinery, the anodes are plated to starter sheets in an electrolytic process to produce copper cathode.

RTK is a fully integrated copper mining operation, enabling us to maintain our high quality standards and traceability across the production process. Our world class safety performance, ISO 9001 certified operations and Copper Mark accreditation demonstrates our rigorous dedication to our customers, employees, and surrounding communities.

Our copper cathode consistently meets the American Society of Testing and Material (ASTM) standards for quality, and is good-deliverable on the Chicago Mercantile Exchange (CME) and the London Metal Exchange (LME). We maintain a large private boxcar fleet to support cathode deliveries by rail served by UP and BNSF.

Typical Averages

99.99% pure copper

ASTM B-115 Specs

Our Copper Cathode, which is 99.99% pure copper, consistently meets the following ASTM B-115 quality specifications

Element	Symbol	ppm
Selenium	Se	2.0
Tellurium	Te	2.0
Bismuth	Bi	1.0
Group Max Total		3.0
Antimony	Sb	4.0
Arsenic	As	5.0
Tin	Sn	5.0
Lead	Pb	5.0
Iron	Fe	10.0
Nickel	Ni	10.0
Sulfur	S	15.0
Silver	Ag	25.0
Maximum Allowable		65.0

Sizing

Each Cathode has two sides, joined at the bottom. While corrugated by default, non-corrugated copper cathode is also available upon request.

Length	39" (990mm)
Width	39.125" (993mm)
Thickness (per side)	0.19" (4.82mm)
Total	0.38" (9.64mm)

Transportation

Strapped in 5,500 lb bundles

Railcars	206,500lbs (94t)
Trucks	43,500lbs (20t)
Marine Containers	57,000lbs (25t)



About Rio Tinto and our Kennecott operations

Rio Tinto is one of the world's leading metals and mining companies with a global workforce of over 49,000 and an extensive portfolio of operating assets spanning across Australia, Asia, North and South America, Europe and Africa.

We produce iron ore, aluminum, copper, gold, silver, molybdenum, tellurium, selenium, diamonds, and industrial minerals. Many of our materials are essential for the low-carbon transition and for advancing human progress.

As a subsidiary of Rio Tinto, Rio Tinto Kennecott (RTK) has been mining and processing minerals from the rich ore body of the Bingham Canyon Mine at Salt Lake City, Utah for nearly 120 years. It is one of only two US smelters currently operating in the country, making it a critical asset for ensuring supply of copper.

RTK produces copper cathode, molybdenum, gold, silver, tellurium, selenium, carbonate and sulfuric acid, and ships those products around the world to meet customers' needs.



Sustainability

At Rio Tinto, sustainability is more than a catch phrase. Aligning our business strategy and daily practices around sustainability enables us to strengthen our operations and products, build enduring communities, and provide lasting benefit to customers, employees, and stakeholders.

Companywide, we have committed to achieving net zero emissions by 2050 and target a 15% reduction of scope 1 and 2 emissions by 2025, with a 50% reduction by 2030*.

At our Kennecott site, we moved to renewable energy in 2019, which reduced our carbon footprint by as much as 65%** . In 2020, we became the first mine in the world to be awarded the Copper Mark, the industry's first and only independent assurance framework- verifying that the copper is responsibly produced.

Safety

Safety is our number one priority at Rio Tinto. Our goal is for everyone to go home safe at the end of each day. We have global safety standards which address key areas of risks, and they provide consistency in safety management and performance across our global operations and projects. Our businesses are audited internally against these standards and are expected to meet safety performance requirements and targets.

Our commitment to safety has enabled us to achieve a safety performance which is higher than the industry average for all injury frequency rates.

Rio Tinto | Kennecott

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References

* Visit <https://www.riotinto.com/en/sustainability/climate-change> to learn more about Rio Tinto's sustainability commitments.

** Learn more about our Kennecott operations here: <https://www.riotinto.com/operations/us/kennecott>