

## Electrolytic Copper Cathode

### COPPER CATHODE

At Kennecott Utah Copper, we take pride in responsibly producing copper cathodes. Our world class safety performance and our ISO 14001 certified operations show our rigorous dedication to our employees, the environment and the surrounding communities.

Copper cathode is the primary raw material input for the production of copper rod for the wire and cable industry. Copper is also used in the production of brass, copper tube, copper sheet products, and found in over 450 alloys.

Copper is found mainly in sulfide minerals and oxide minerals. At Kennecott Utah Copper's Bingham Canyon Mine, the primary source of copper comes from sulfide minerals. Sulfide minerals are crushed in an in-pit crusher before being sent to Kennecott's Copperton Concentrator. The concentrate is then pumped to Kennecott's Garfield 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.



### ASTM B-115 Specifications

Element	Symbol	ppm
Selenium	Se	2.0
Tellurium	Te	2.0
Bismuth	Bi	1.0
<b>Group Max Total</b>		<b>3.0</b>
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
<b>Maximum Allowable</b>		<b>65.0</b>

### SIZING

Each Cathode has two sides that are joined at the bottom

• Length	39 inches	990 mm
• Width	39.125 inches	993 mm
• Thickness Per Side	0.19 inches	4.82 mm
Total	0.38 inches	9.64 mm

### PACKAGING / TRANSPORTATION

Strapped in 5,500 lb bundles

• Railcars	185,000 lbs	84 metric tons
• Trucks	43,500 lbs	20 metric tons
• Marine Containers	57,000 lbs	25 metric tons



## Rio Tinto and Kennecott Utah Copper

Rio Tinto is a world leader in finding, mining and processing the earth's mineral resources. Rio Tinto has operations in Australia, Asia, North and South America, Europe and Africa. Rio Tinto produces aluminum, copper, diamonds, gold, silver, molybdenum, industrial minerals, energy and iron ore. The company employs over 65,000 employees globally.

Kennecott Utah Copper (KUC) is a wholly owned subsidiary of Rio Tinto. For more than 105 years, KUC has been mining and processing minerals from the rich ore body of the Bingham Canyon Mine. KUC produces copper, molybdenum, gold, silver and sulfuric acid, and ships those products around the world to meet customers' needs.

## Sustainable development

For Rio Tinto and KUC, sustainable development is more than just a catch phrase. By aligning our business strategies and daily practices around sustainable development, we are able to strengthen our operations and products, build enduring communities, and provide lasting benefits for our customers, employees and stakeholders. For more on our sustainable development activities, please visit [www.kennecott.com](http://www.kennecott.com).

## Safety

At KUC, our goal is to ensure that each employee goes home safe at night. This type of commitment and the investment of time, resources and training, have produced recent safety statistics that are significantly better than the industry average for all injury frequency rates. Safety is a core value and an essential part of the culture at KUC and Rio Tinto.

**Rio Tinto**

## Kennecott Utah Copper

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