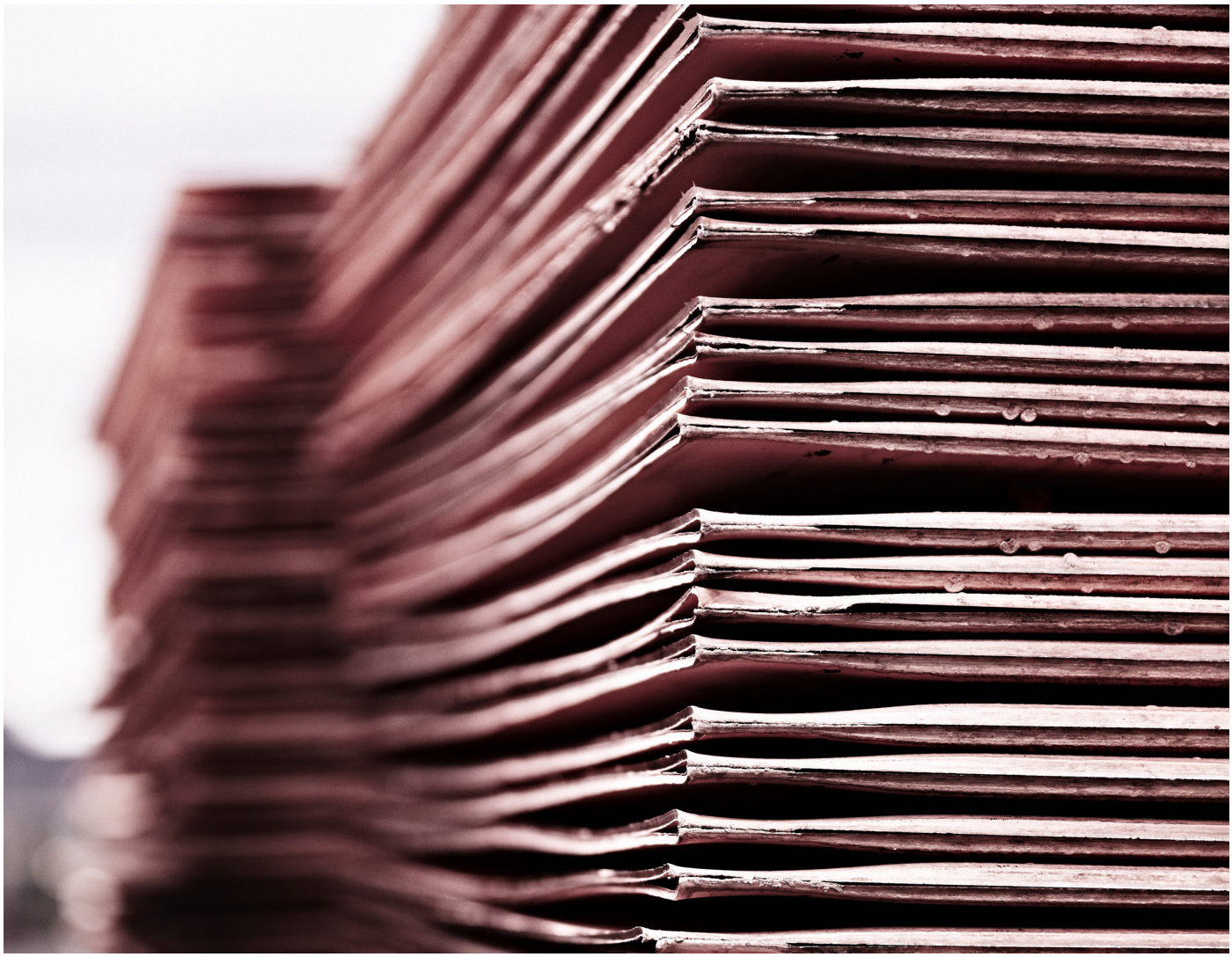
BOLIDEN

Metals for modern life

Copper



REFINED COPPER CATHODE is one of Boliden's core products. Our copper cathodes are produced by a pyrometallurgical process, electrolytically refined, at Boliden Rönnskär, Sweden, and at Boliden Harjavalta, Finland. Our annual cathode production exceeds 330,000 mt, making us the third biggest refined copper producer in Europe.

Our copper cathodes meet the London Metal Exchange (LME) quality requirements for Grade A copper cathode with 99,995% Cu purity or higher. With a level of total impurities of less than 0,005% it is the purest copper according to EN 1978-Cu-CATH-1 standard. Our brands, BK and BCH are registered brands in the LME. They suit all applications and can be mixed with alloying elements and are available from 40 kg to 100 kg in weight.

OUR PROMISE

Boliden as the North European producer of Grade A copper cathode, through its geographic location, high quality products and professional service, provides you with frequent, agile and precise deliveries supporting your high quality product portfolio and efficient working capital management targets. As a European Union producer Boliden fulfills the prerequisites of the foreign trade preferential status of several other European, Pan-Euro Mediterranean, American and Asian countries.

By becoming Boliden's partner, we want to help you add value to your customers and work with you for a more sustainable future.

European EN 1978-Cu-CATH-1

Did you know that …

2% of a passenger airplane's weight consists of copper - 190 km cabling

Technical Specification BK

	approx.
Cathode Shape:	1,000 x 1,000 x 7 mm
Weight:	50 kg
Package weight:	2,500 kg
Width x length:	1,000 x 1,000 mm
Average height in the middle of the package:	350 mm
Bulk volume:	0.35 m^3

Unit Load: The cathodes are bundled with two steel-rolled straps in packages of approximately 50 pieces.

Marking: Each cathode package has a bar code stating actual weight, date, serial number and the brand name BK. The steel-rolled straps are marked with BK.

Chemical composition	Type analysis	Tolerance
Ag	14.0	ppm
Pb	1.0	ppm
Bi	0.1	ppm
Sb	0.5	ppm
S	3.4	ppm
Fe	2.0	ppm
As	0.6	ppm
Te	0.2	ppm
Ni	0.9	ppm
Se	0.5	ppm

Technical Specification BCH

	approx.
Cathode Shape:	1,000 x 1,000 x 12 mm (taco type, clinch option)
Weight:	80-130 kg
Package weight:	3,300 kg
Width x length:	1,000 x 1,000 mm
Average height in the middle of the package:	600 mm
Bulk volume:	0.6 m^3

Unit Load/ Weight: The cathodes are bundled with two steel-rolled straps in packages of approximately 35 pieces.

Marking: Each cathode package has a bar code stating actual weight, date, serial number and the brand name BCH. The steel-rolled straps are marked with BCH.

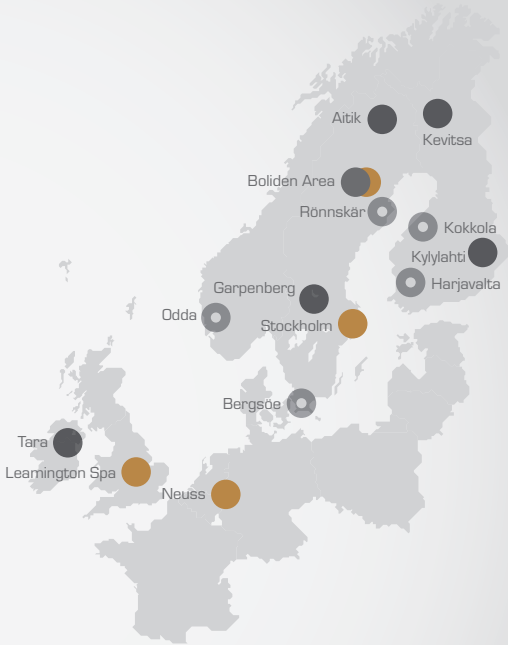
Chemical composition	Type analysis	Tolerance
Ag	11.4	ppm
Pb	0.3	ppm
Bi	0.3	ppm
Sb	0.3	ppm
S	4.0	ppm
Fe	0.3	ppm
As	0.3	ppm
Te	0.3	ppm
Ni	0.5	ppm
Se	0.3	ppm

The Boliden Group

Metals are an ever-present and vital component of society. Boliden extracts minerals and produces high quality metals in a cost-efficient way. The work – from exploration to customer delivery – is characterised by care for people, the environment and society.

The Boliden Group operates four mines and five smelters in Sweden, Finland, Norway and Ireland and has a total of approximately 5,700 employees. Our core expertise is in exploration, mining, smelting and recycling.

Boliden's main metals are zinc and copper, but the production of lead, gold, silver and other products is also of considerable importance for our profitability. The annual turnover is approximately SEK 50 billion.



Our value chain

Exploration Successful exploration is vital to long-term metal production. The exploration is conducted in the vicinity of existing mines and in new areas in order to find new deposits.

Mines Zinc-, copper-, nickel-, lead-, gold- and silver-bearing ores are mined in Boliden's mining areas. The ore is processed to metal concentrate, the majority of which is delivered to smelters within the Group.

Smelters Boliden's smelters refine metal concentrates and other raw materials, such as electronic scrap, to produce both pure metals and customised alloys.

Customers Our products are mainly sold to industrial customers in Europe. Most of the zinc is sold to steel companies, while the copper is supplied to manufacturers of for example wire rod.