

## Oxygen-free copper rod

Producer	KGHM Polska Miedź S.A. Cedynia Wire Rod Plant Division in Orsk
Product	Oxygen-Free Copper Rod Cu-OFE-8, Cu-OFE-12.7, Cu-OFE-16, Cu-OFE-20, Cu-OFE-22, Cu-OFE-24, Cu-OFE-25
Standard	PN-EN 1977, ASTM B49, DIN-1708
Dimensions and tolerances	8 mm±0.4; 12.7 mm±0.4; 16 mm±0.4; 20 mm±0.6; 22 mm±0.6; 24 mm±0.6; 25 mm±0.8
Charge material	Cathode grades: Cu-CATH-1; brands: HMG-B, HMG-S
Impurities	Max. 25 ppm, $O_2$ = max. 3 ppm
Physical properties	Electrical conductivity in 20°C: min. 58.8 MS/m (101% IACS) Hydrogen embrittlement: Cu-OFE-8 – min. 10 bends in bend testing Cu-OFE-12.7 – without breakage in single-bent samples Scale adhesion: assured Density: min. 8.92 kg/dm³ Elongation (200 mm): $\geq$ 38 $\pm$ 2% Tensile strength (200 mm): 180 $\pm$ 10 N/mm²
Packing	The oxygen-free Cu rod is supplied in coils of about 2.5 mt – 4 mt mt weight in one piece. Each coil is secured with stretch foil to protect it from external conditions. Pallet dimensions: 1650 x 1650 x 150 mm Internal coil diameter: 900 mm; External coil diameter: 1800 mm

- The Cedynia Wire Rod Plant Division of KGHM Polska Miedź S.A. produces oxygen-free Cu rod in a structurally cast state using UPCAST technology.
- The surface of the oxygen-free copper rod is smooth and clean without cracks and micro holes, and is coated with a synthetic wax layer to protect the surface against oxidation during transport and storage (application of the synthetic wax layer is optional at the customer's request).
- Trace oxygen content (max. 3 ppm) ensures high drawability and enables achievement of excellent results in deep drawing (50–30 μm).
- The Cedynia Wire Rod Plant Division of KGHM Polska Miedź S.A. holds an Integrated Management System Certificate conforming to the following standards: PN-EN ISO 9001:2009, PN-EN ISO 14001:2005 and PN-N 18001:2004 for the products it manufactures.





## KGHM Polska Miedź S.A.

## Semi-Products Department

ul. Marii Skłodowskiej-Curie 48, 59-301 Lubin, Poland tel. +48 76 74 78 882, 886, 830, 869, 857, 844, 867, 802, 885 fax +48 76 74 78 809, 506, 822 www.kghm.com