Technical Data Sheet
COPR-TRODE®

Description and Application

COPR-TRODE® is a deoxidized copper alloy developed to provide dense, high quality deposits with relatively high electrical conductivity for use in joining and overlay with the inert-gas processes. COPR-TRODE® spooled wire and filler metal rod are used primarily to fabricate deoxidized copper and repair weld copper castings with the gas metal-arc and gas tungsten-arc processes. It may also be used to weld galvanized steel and deoxidized copper to mild steel where high strength joints are not required. COPR-TRODE® spooled wire and filler metal rod are used to overlay surfaces to resist corrosion.

Limiting Chemical Composition,

% (filler metal)

Copper*..... 98.0 min.
Tin..... 1.0 max.
Manganese..... 0.50 max.
Silicon..... 0.50 max.
Phosphorus..... 0.15 max.
Others ..... 0.50 max.
* including silver

Mechanical Properties

(Nominal all-weld metal values)

Tensile Strength, ksi..... 29 (200 MPa)
Yield Strength, ksi..... 8 (55 MPa)
Elongation, % in 2" (51 mm)..... 29
Reduction of Area, %..... 45
BHN (500kg.)
1/4" (6.4 mm) deposit..... 54
Electrical Conductivity, % IACS..... 40

**Hardness will vary depending on quality of the weld and experience and knowhow of the welder.*

Specifications

AWS A5.7 Class ERCu

Typical Applications

Billet molds
Conductor rolls
Heater elements
Copper sculptures
Steel mill electrode holders
Bus bars
Copper connectors