



Eutalloy® CuproTec 10180

Atomised Metal Powder for Joining Copper

Description:

CuproTec 10180 is a copper-based self fluxing alloy for joining copper and its alloys. Deposits are air-tight and corrosion resistant, maintaining electrical and thermal conductivity.

This self wetting alloy has the capillary action which produces smooth, dense joints in places which are difficult or cumbersome to reach with conventional gas welding.

Outstanding Features:

Leak tight joints: Recommended for high strength welds on thin walled and intricate copper alloy parts that require an absolute liquid or gas tightness, often under pressure.

Self fluxing on copper: The alloy content of CuproTec 10180 reduces oxide formation. The possibility of residual contamination is eliminated when CuproTec 10180 is employed.

Corrosion Resistance: CuproTec 10180 deposits offer similar corrosion resistance to that presented by copper and copper alloys.

Conductivity: CuproTec 10180 joints provide good electrical and thermal conductivity.

Ductility: deposits of CuproTec 10180 will withstand the stress of vibration, shock and temperature variations.

Economy: Ease of application coupled with precise alloy deposition makes CuproTec 10180 a real time and money saver for production and maintenance work.

Appearance: CuproTec 10180 produces an even, smooth deposit with excellent colour match to copper and phosphor bronzes.

Technical data:

Tensile Strength: 289 MPa.

Machinability: Excellent, with normal cutting tools.

Corrosion resistance: Very good.

Base materials: Copper & copper alloys.

Torches:

Eutalloy A, B, C, Express and SuperJet.

Applications:

Air conditioning & Automotive, radiators, tubes, fittings, Brewery & Chemical: equipment, heat exchangers, piping, coils, kettles, condensers.

Electrical equipment: bus bars, circuit breakers, contacts.

Plumbing & Refrigeration: brass & copper tubing.

Procedure for use:

Preparation:

All surfaces to be coated should be thoroughly cleaned, removing all contaminants, oxides and grease. Thin surfaces and edges require no preheating. Large, heavy parts should be heated to about 300°C.

Coating instructions:

For coating operations, the flame of Eutalloy torch should be adjusted to 3X carburizing during powder feed.

To prevent oxidation of the base material we recommend spraying a thin coat of CuproTec 10180.

A second coat is delivered in the following manner: preheat locally to fusion point (when the first coat becomes glazed in appearance), then spray the second coat, moving progressively along the entire surface following this fuse-then-spray procedure.

The distance from nozzle to surface: approx. 6-10 mm.

Leave the part to cool slowly and avoid draughts. Where possible, place it in vermiculite.

Packaging:

Cuprotec 10180 can be obtained in a 500-gram module.

DIGITALWELD

J.D.M Holdings Ltd

Unit D/17 Hobill Avenue, Wiri, Manukau, 2104. P.O Box 97622 Manukau City, Manukau 2241, New Zealand
Ph: +64 (09) 263 7099 Fax: +64 (09) 263 5062 Email: sales@digitalweld.co.nz Website: www.digitalweld.co.nz