



A Copper-Base Alloy with a Unique
Range of Thermal, Mechanical and
Corrosion-Resistant Properties

TigTectic® 182



- Ideal for hard-to-weld dissimilar metal combinations
- Good for corrosion resistant cladding on bearing surfaces
- Excellent comparative mechanical properties

TigTectic® 182

TigTectic 182 is formulated to weld silicon bronzes (Everdur™), yellow and red bronzes, and for welding galvanized and aluminized steels. It is also useful when coating low carbon steels when a corrosion-resistant surface is required.

TECHNICAL DATA

Typical Values

Tensile Strength:	62,000 psi (428 N/mm ²)
Hardness:	80 BHN
Color Match Properties:	Deposits are a dark yellow-red
Preheat Temperature:	Not required, weld metal is extremely hot-short
Interpass Temperature:	Must not exceed 150°F (65°C)
Welding Processes:	Gas Tungsten-arc and Oxy-fuel Gas

PROCEDURE FOR USE

PREPARATION: Remove all contaminants, particularly oil and grease. Lightly grind surfaces to remove superficial oxides. Prepare cracks to have a 60 - 75° V-groove. A root opening of 1/8" is recommended. If necessary, preheat to remove moisture.

TECHNIQUE: When GTA welding use welding-grade argon with the polarity set on DCEP (-). If additional weld-puddle cleaning is needed use AC-High Frequency. Maintain a small weld puddle and deposit using stringer beads (do not weave, as high silicon alloys are sensitive to hot tearing).

Note: Make sure to support the part during welding and that the inter-pass temperature does not exceed 150°F (65°C).

Although the Oxy-fuel process can be used with silicon bronzes, it is recommended to use arc welding processes for optimum control of weld deposit properties.

POST WELDING: Slow cool out of the way of drafts.

TYPICAL APPLICATIONS

- Hydraulic Pressure Couplings
- Heat-Exchanger Tubing
- Electrical Conduits
- Pole-Line Hardware
- Sheet Metal Joining - Either Clad or Unclad
- TigTectic 182 is also suitable for use with the Oxy-Fuel Gas process



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