

ARCTEC® 600 COPPER



GENERAL CHARACTERISTICS:

ARCTEC® 600 COPPER is a pure copper alloy for build-up and joining of commercial deoxidized copper. This electrode enables oxygen-free types of pure copper to be welded with good, porosity free, results. The weld metal contains more than 98% copper and therefore does not differ from the base metal in respect to color, corrosion resistance and strength. The deposit has high thermal and electrical conductivity.

APPLICATIONS:

The ARCTEC® 600 electrode is used for fabrication and maintenance welding where a dense porosity-free deposit is required. Suitable for repair of blast furnace molds, sealing rings, cooling boxes, fittings, contact jaws and other electrical components.

WELDING PROCEDURE:

Clean the weld zone free of all scale, oxides, grease and other foreign matter. Prepare joints as required. Thin sections can be butt-welded together when a sufficient gap is maintained. Bevel sections 1/4" (6.35mm) or heavier to an 80° included angle using a single vee joint to reduce residual stresses. The welding operation is made easier if the weld joint and surrounding area is preheated to 100°C (212°F) on thin sections and 500°C (932°F) on heavy sections. Maintain a short arc and hold the electrode vertical to the workpiece. Use a power source with a high open circuit arc voltage for better welding performance. Always ensure adequate ventilation is available when welding in confined areas.

MECHANICAL PROPERTIES:

Hardness 60-70 HB	Tensile Strength 28,000 - 35,000psi 193 - 220 MPa	Elongation 35% - 40%
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OPERATING PARAMETERS:

WELDING PROCESS: SMAW

POLARITY: DC Reverse

Recommended Amperage:

Diameter 2.5mm 3/32"	2.5mm 3/32"	3.25mm 1/8"	4.00mm 5/32"
Amperage 68-80		90-120	100-130

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