

AMTEC 604C PHOSPOR-TIN BRONZE ELECTRODE

DC REVERSE OR AC ELECTRODE



General Characteristics

Amtec 604C is an AC-DC phosphor/tin bronze electrode that works very well on AC current. This is the only bronze electrode that can be used on AC. This specially developed alloy is excellent for joining copper base alloys not only to themselves, also to stainless steel, cast iron, and steels, including galvanized steel. Provides a smooth deposit free from spatter, with an easily removable slag. Can be welded with easy manipulation in all positions, and has excellent color match on bronze.

Tensile Strength	-	55,000 PSI
Yield Strength	-	30,000 PSI
Elongation	-	18%
Hardness (HB)	-	105

Diameter		Amps(approx.)
(Inch)	(MM)	
		75-105
3/32	2.5	100-135
1/8	3.25	120-160
5/32	4.0	

Procedure

Clean the weld zone of all contaminants. Maintain a short arc and hold the electrode almost vertically. Sheets up to 5/32 inch thick can be butt welded with a sufficiently large gap. On thick walled components, it is recommended that a Vee of 90° be used. A preheat of 500°F should be used on all thick walled bronzes, and if copper to bronze is being attempted, then the copper must be preheated to 1000°F minimum. Maintain a short arc, holding electrode vertically to the workpiece. Clean slag thoroughly between passes. When welding in confined areas, adequate ventilation must be provided.

Application

For joining a wide variety of copper base alloys to themselves and to steel and cast iron. Ideal for wear resistant overlays on shafts and bearing surfaces. For bearing shells, housings, impellers, pumps, turbines, galvanized tanks and pipes, gear teeth, and other build-up applications where machining is required.

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Tip Color – Plain
Amtec 604C Imprint
Dark Brown Coating