

747 WH

STRONG PROBLEM SOLVING ALLOY

WORK HARDENING

GENERAL CHARACTERISTICS:

A low heat input electrode designed to produce the highest tensile welds. It can be used in all positions to produce smooth, porosity free welds without undercut or spatter. Also available as a TIG wire.

APPLICATIONS:

Welding low, medium and high alloy steels requiring the highest strength and quality. Ideal for repair of tools, dies, springs, carbon steels, stainless steels, pressure vessels, aircraft steels, vanadium-moly spring steels and as an underlayment or pad prior to applying hard facing alloys. Commonly used for joining stainless steels of unknown analysis and these steels to carbon steels. Also used for rebuilding shafts and blades used in the chemical, construction, and mining industries, and for broken stud removal.

TECHNICAL DATA:

Tensile Strength as welded	up to 120,000 psi (827 N/mm ₂)				
Work hardens	up to 180,000 psi (1241 N/mm ₂)				
Yield Strength	up to 90,000 psi (621 N/mm ₂)				
Elongation %	approx. 30				
Hardness (HB)	approx. 300				
Current	AC or DC reverse polarity (electrode+)				
Amperage	30-40	40-80	65-120	90-150	140-220
(in)	1/16"	3/32"	1/8"	5/32"	3/16"
(mm)	1.6	2.5	3.25	4.0	5.0

PROCEDURE:

Prepare joint area by removing foreign material. Bevel heavy sections to form a 90° vee. Preheat high carbon steels to 400°F (204°C). Use jigs, fixtures, and tack welds to maintain alignment. Hold a short arc. Stringer beads are preferred to prevent overheating. Allow to cool before removing slag. Deposits will take a high polish when subjected to wear.