



Techalloy 606

Description

Techalloy 606 is used for TIG, MIG and SAW welding of base materials such as ASTM B163, B166, B167 and B168— alloys which have UNS Number N06600. Its ability to apply to applications ranging from cryogenic to high temperatures makes this alloy one of the most used in the nickel family. This filler metal can also be used for dissimilar welding applications between various nickel alloys and stainless or carbon steels, as well as for overlay.

Specifications & Approvals:

AWS A5.14 ERNiCr-3

UNS N06082

CWB

Typical Chemical Composition

C	Mn	Si	Fe	Cr	Mo	Ni	Nb	W	S	P	Al	Ti	Cu
.03	2.8	.22	1.1	20.4		72.9	2.5		.001	.003			

Typical Mechanical Properties

Tensile Strength	86,000 PSI	590 MPA
Yield Strength	52,000 PSI	360 MPA
Elongation	38%	

Welding Parameters

Process	Diameter	Voltage	Amperage	Gas
TIG	.035" (0.9mm)	12-15	60-90	100% Argon
	.045" (1.2mm)	13-16	80-110	100% Argon
	1/16" (1.6mm)	14-18	90-130	100% Argon
	3/32" (2.4mm)	15-20	120-175	100% Argon
	1/8" (3.2mm)	15-20	150-220	100% Argon
MIG	.035" (0.9mm)	26-29	150-190	75% Argon + 25% Helium
	.045" (1.2mm)	28-32	180-220	75% Argon + 25% Helium
	1/16" (1.6mm)	29-33	200-250	75% Argon + 25% Helium
SAW	3/32" (2.4mm)	28-30	275-350	Suitable Flux may be used
	1/8" (3.2mm)	29-32	350-450	Suitable Flux may be used
	5/32" (4.0mm)	30-33	400-550	Suitable Flux may be used

Standard Packages:

MIG Wire— 33# wire basket	TIG Wire— 10# tube/30# Master Carton	SAW— 60# Coil
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