



Techalloy 418

Description

Techalloy 418 is used for TIG or MIG welding of copper alloys (ASTM B127, B163, B164 and B165 UNS Number N04400). This filler metal can be used for MIG overlay on steel after a first layer with nickel 208 (Filler Metal 61). Dissimilar welding applications include joining Monel alloys to Nickel 200 and copper-nickel alloys. This product is widely used in marine applications because of its good resistance to the corrosive effects of seawater and brackish waters.

Specifications & Approvals:

AWS A5.14 ERNiCu-7

UNS N04060

CWB

Typical Chemical Composition

C	Mn	Si	Fe	Cr	Mo	Ni	Nb	W	S	P	Al	Ti	Cu
.05	3.45	.77	.40			65.2			.002	.009	.1	2.25	BAL

Typical Mechanical Properties

Tensile Strength	76,500 PSI	530 MPA
Yield Strength	52,500 PSI	360 MPA
Elongation	34%	

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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