



# Techalloy 617

## Description

Techalloy 617 is used for TIG, MIG and SAW welding of nickel-chrome-cobalt-molybdenum alloys, as well as between themselves and dissimilar metals such as stainless, carbon or low alloy steels. This filler wire can also be used for overlay welding where similar chemical composition is desired. The weld metal provides optimum strength and oxidation resistance from 1500°F (815°C) up to 2100°F (1150°C).

## Specifications & Approvals:

AWS A5.14 ERNiCrCoMo-1

UNS N06617

CWB

## Typical Chemical Composition

C	Mn	Si	Fe	Cr	Mo	Ni	Nb	W	S	P	Al	Ti	Co
.06	.20	.11	.75	21.8	9.05	BAL			.001	.005	1.25	.25	12.45

## Typical Mechanical Properties

Tensile Strength	112,000 PSI	770 MPA
Yield Strength	88,000 PSI	610 MPA
Elongation	28%	

## 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
---------------------------	--------------------------------------	---------------