



# Techalloy 630

## Description:

Techalloy 630 is a precipitation hardening stainless steel used for welding materials of similar chemical composition such as 17-4 and 17-7. Can be used in the as welded condition or in the heat treated condition to obtain higher strength. Mechanical properties of this alloy are greatly influenced by the heat treatment.

NOTE: Mechanical properties listed below reflect utilization of a post-weld heat treatment between 1875°F and 1925°F for one hour, followed by precipitation hardening between 1135°F an

## Specifications & Approvals

AWS A5.9 ER630

UNS S17480

CWB

### Typical Chemical Composition

C	Mn	Si	Cr	Mo	Ni	Nb	N	S	P	Cu	FN (WRC)
.03	.54	.43	16.49	.2	4.78	.22		.021	.017	3.6	

### Typical Mechanical Properties

Tensile Strength	150,000 PSI	1030 MPA
Yield Strength	135,000 PSI	930 MPA
Elongation	10%	

### Welding Parameters

	Shielding	Gas Flow	Diameter	Voltage	Amperage
Mig Welding	98/99% Argon + 2/1% Oxygen 97% Argon + 3% CO2	30 to 50 CFH	.035" (0.9mm) .045" (1.14mm) .062" (1.6mm))	26 to 29 28 TO 32 29 TO 33	160/210 180/250 200/280
Tig Welding	100% Argon				
Sub Arc Welding	Suitable flux may be used		3/32" (2.5mm) 1/8" (3.14mm) 5/32" (4.0mm)	28 to 33 29 TO 32 30 TO 33	275/350 350/450 400/550

### Standard Packages:

Mig Wire– 33# wire basket	Tig Wire– 10# tube/30# Master Carton	SAW– 60# Coil
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