



# Tech-Rod 630

## Description

Tech-Rod 630 is a precipitation hardening steel covered electrode use 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 the alloy are greatly influenced by the heat treatment.

NOTE: Mechanical properties below reflect utilization of post-weld heat treatment between 1875°F and 1925°F for one hour, followed by precipitation hardening between 1135°F and 1165°F for four hours.

## Specifications & Approvals

AWS A5.4 E630-16

UNS W37410

CWB

ASME QSC-395

## Typical Chemical Composition

C	Mn	Si	Fe	Cr	Mo	Ni	Nb	N	S	P	Cu	FN
.03	.56	.44	BAL	16.58	0.2	4.78	.24	*	.02	.018	3.55	

\* Nitrogen in these weld deposits is usually between .04% and .08%

## Typical Mechanical Properties

Tensile Strength	150,000 PSI	1030 MPA
Yield Strength	133,800 PSI	920 MPA
Elongation	10%	

## Welding Parameters

Process	Diameter x Length	Voltage	Amperage	
			Flat	Vertical & Overhead
SMAW	3/32" (2.4mm) x 12" (305mm)	24-28	70-85	65-75
	1/8" (3.2mm) x 14" (355mm)	26-30	85-110	80-90
	5/32" (4.0mm) x 14" (355mm)	28-32	110-140	100-120
	3/16" (4.8mm) x 14" (355mm)	28-32	120-160	110-130

## Standard Packages:

3/32" Diameter	8 Lb (3.6Kg) Can	24 Lb (10.9Kg) Master Carton	26 Electrodes per Lb
1/8" Diameter	10 Lb (4.5Kg) Can	30 Lb (13.6Kg) Master Carton	14 Electrodes per Lb
5/32" Diameter	10 Lb (4.5Kg) Can	30 Lb (13.6Kg) Master Carton	9 Electrodes per Lb
3/16" Diameter	10 Lb (4.5Kg) Can	30 Lb (13.6Kg) Master Carton	6 Electrodes per Lb