



# Tech-Rod 410

## Description

Tech-Rod 410 is designed to weld stainless steels of similar chemical composition as well as to overlay carbon steels to impart corrosion, erosion and abrasion resistance. This material, being an air-hardening type, calls for a pre-heat and inter-pass temperature of not less than 400°F (200°C) during welding.

NOTE: Mechanical properties below reflect utilization of post-weld heat treatment between 1550°F and 1650°F for two hours

## Specifications & Approvals

AWS A5.4 E410-16

UNS W41010

ISO 3581:2003 (13)

CWB

ASME QSC-395

## Typical Chemical Composition

C	Mn	Si	Fe	Cr	Mo	Ni	Nb	N	S	P	Cu	FN
.12	.68	.52	BAL	12.10				*	.021	.022		

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

## Typical Mechanical Properties

Tensile Strength	78,500 PSI	540 MPA
Yield Strength	63,000 PSI	430 MPA
Elongation	23%	

## 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