



Tech-Rod 312

Description

Tech-Rod 312 electrodes are used for welding wrought and cast alloys of similar composition as well as for welding dissimilar metals. The weld deposits exhibit high tensile strength and offer some resistance to abrasion.

Specifications & Approvals

AWS A5.4 E312-16

UNS W31310

ISO 3581:2003 (29 9)

CWB

ASME QSC-395

Typical Chemical Composition

C	Mn	Si	Fe	Cr	Mo	Ni	Nb	N	S	P	Cu	FN (WRC)
.12	1.8	.56	BAL	29.3		9.4		*	.021	.022		30 min

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

Typical Mechanical Properties

Tensile Strength	109,000 PSI	750 MPA
Yield Strength	78,000 PSI	540 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