



Tech-Rod 182

Description: Tech-Rod 182 electrodes are used for welding of nickel-chromium-iron alloys to themselves and for dissimilar welding between nickel-chromium-iron alloys and steels or stainless steels. The applications include surfacing as well as clad side welding. High manganese of this weld deposit reduces the possibility of micro fissures but reduces creep strength which limits its usage up to 900°F.

Specifications & Approvals:

AWS A5.11:2010 ENiCrFe-3

UNS W86182

ASME QSC-395

CWB

Typical Chemical Composition

C	Mn	Si	Fe	Cr	Mo	Ni	Nb	W	S	P	Ti	Al	Other
.03	6.5	.4	7.4	15.3		68	1.7		.005	.012			

Typical Mechanical Properties

Tensile Strength	95,000 PSI	650 MPa
Yield Strength	61,000 PSI	420 MPa
Elongation	42%	

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