

TECH-ROD® 182

Nickel ■ AWS ENiCrFe-3

KEY FEATURES

- High manganese of this weld deposit reduces the possibility of micro fissures but reduces creep strength which limits its usage up to 900 °F (482 °C)
- Q2 Lot® - certificates showing actual deposit composition available online
- Wide range of applications

CONFORMANCES

AWS A5.11/A5.11M: 2010 ENiCrFe-3
ASME SFA-A5.11 ENiCrFe-3
UNS W86182

TYPICAL APPLICATIONS

- Used for welding nickel-chromium-iron alloys to themselves
- Used for dissimilar welding between nickel-chromium-iron alloys to mild steel or stainless steel

DIAMETERS / PACKAGING

Diameter in (mm)	Length in (mm)	8 lb (3.6 kg) Can 24 lb (10.9 kg) Master Carton	10 lb (4.5 kg) Can 30 lb (13.6 kg) Master Can
3/32 (2.4)	12 (305)	EL182093632	
1/8 (3.2)	14 (355)		EL182125634
5/32 (4.0)	14 (355)		EL182156634
3/16 (4.8)	14 (355)		EL182187634

MECHANICAL PROPERTIES - As Required per AWS A5.11/A5.11M: 2010

	Tensile Strength Mpa (ksi)	Elongation %
Requirements AWS A5.11/A5.11M:2010	550 (80 min)	30 min
Typical Performance Tech-Rod® 182	600 (87)	34

DEPOSIT COMPOSITION⁽¹⁾ - As Required per AWS A5.11: 2010

	%C	%Mn	%Fe	%P	%S	%Si
Requirements AWS ENiCrFe-3	0.10 max	5.0 - 9.5	10.0 max	0.03 max	0.015 max	1.0 max
Typical Performance⁽²⁾ Tech-Rod® 182	0.04	5.7	8.4	0.02	0.005	0.3
	%Cu	%Ni	%Ti	%Cr	%Nb+Ta	%Other
Requirements AWS ENiCrFe-3	0.50 max	59.0 min	1.0 max	13.0 - 17.0	1.0 - 2.5	0.50 max
Typical Performance⁽²⁾ Tech-Rod® 182	0.04	68.5	0.1	15.1	1.2	<0.5

TYPICAL OPERATING PROCEDURES

Diameter in (mm)	Length in (mm)	Amperage	
		Flat	Vertical & Overhead
3/32 (2.4)	12 (305)	70-85	65-75
1/8 (3.2)	14 (355)	85-110	80-90
5/32 (4.0)	14 (355)	110-140	100-120
3/16 (4.8)	14 (355)	120-160	110-130

⁽¹⁾Typical all wire chemistry. ⁽²⁾See test results disclaimer on pg. 13.
 Safety Data Sheets (SDS) are available on our website at www.lincolnelectric.com