

TECH-ROD® 112

Nickel ▪ AWS ENiCrMo-3

KEY FEATURES

- A covered electrode which is used to weld nickel-chromium-molybdenum alloys
- These electrodes are used in applications where the temperature ranges from cryogenic up to 1800°F (982°C)
- Q2 Lot® - certificates showing actual deposit composition available online

CONFORMANCES

AWS A5.11/A5.11M: 2010 ENiCrMo-3
UNS W86112
ASME SFA-5.11 ENiCrMo-3

TYPICAL APPLICATIONS

- Used extensively in overlay cladding where a similar chemical composition is required on the clad side
- Dissimilar joints between nickel-chromium molybdenum alloys to stainless steels, carbon or low alloys steels

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)	EL112093632	
1/8 (3.2)	14 (355)		EL112125634
5/32 (4.0)	14 (355)		EL112156634
3/16 (4.8)	14 (355)		EL112187634

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

	Tensile Strength Mpa (ksi)	Elongation %
Requirements AWS A5.11/A5.11M:2010	690 (110 min)	30 min
Typical Performance Tech-Rod® 112	790 (114)	42

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

	%C	%Mn	%Fe	%P	%S	%Si
Requirements AWS ENiCrMo-3	0.10 max	1.0 max	7.0 max	0.03 max	0.02 max	0.75 max
Typical Performance⁽²⁾ Tech-Rod® 112	0.05	0.5	1.9	0.01	0.003	0.33
	%Cu	%Ni	%Cr	%Nb+Ta	%Mo	%Other
Requirements AWS ENiCrMo-3	0.50 max	55.0 min	20.0 - 23.0	3.15 - 4.15	8.0 - 10.0	0.50 max
Typical Performance⁽²⁾ Tech-Rod® 112	0.01	62.1	22.4	3.63	8.7	<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	110-120
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