

# TECH-ROD® 122

Nickel ▪ AWS ENiCrMo-10

## KEY FEATURES

- Excellent corrosion resistance in oxidizing as well as reducing media in a wide variety of chemical process environments
- Offers an outstanding resistance to stress corrosion cracking, pitting and crevice corrosion
- Better corrosion resistance than 276 and 625
- Q2 Lot® - certificates showing actual deposit composition available online

## CONFORMANCES

**AWS A5.11/A5.11M: 2010** ENiCrMo-10  
**ASME SFA-A5.11** ENiCrMo-10  
**UNS** W86122

## TYPICAL APPLICATIONS

- Used for welding of nickel-chromium-molybdenum alloys as well as for overlay cladding on carbon, low alloy or stainless steels
- Used for dissimilar joints between nickel-chromium-molybdenum alloys and stainless, carbon or low alloy steels

## DIAMETERS / PACKAGING

Diameter in (mm)	Length in (mm)	8 lb (3.6 kg) Can 24 lb (10.9 kg) Master Can	10 lb (4.5 kg) Can 30 lb (13.6 kg) Master Can
3/32 (2.4)	12 (305)	EL122093632	EL122125634 EL122156634
1/8 (3.2)	14 (355)		
5/32 (4.0)	14 (355)		

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

	Tensile Strength Mpa (ksi)	Elongation %
<b>Requirements</b> AWS A5.11/A5.11M:2010	690 (110 min)	25 min
<b>Typical Performance</b> Tech-Rod® 122	730 (105)	39

## DEPOSIT COMPOSITION<sup>(1)</sup> - As Required per AWS A5.11: 2010

	%C	%Mn	%Fe	%P	%S
<b>Requirements</b> AWS ENiCrMo-10	0.02 max	1.0 max	2.0 - 6.0	0.03 max	0.015 max
<b>Typical Performance<sup>(2)</sup></b> Tech-Rod® 122	0.02	0.4	4.8	0.01	0.004
	%Si	%Cu	%Ni	%Co	%Cr
<b>Requirements</b> AWS ENiCrMo-10	0.2 max	0.50 max	Remainder	2.5 max	20.0 - 22.5
<b>Typical Performance<sup>(2)</sup></b> Tech-Rod® 122	0.1	0.001	56.7	0.014	21.0
	%Nb+Ta	%Mo	%V	%W	%Other
<b>Requirements</b> AWS ENiCrMo-10	Not Specified	12.5 - 14.5	0.35 max	2.5 - 3.5	0.50 max.
<b>Typical Performance<sup>(2)</sup></b> Tech-Rod® 122	0.008	13.4	0.01	3.4	-

## 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

<sup>(1)</sup>Typical all wire chemistry. <sup>(2)</sup>See test results disclaimer on pg. 13. Safety Data Sheets (SDS) are available on our website at [www.lincolnelectric.com](http://www.lincolnelectric.com)

*Material Safety Data Sheets (MSDS) and Certificates of Conformance are available on our website at [www.lincolnelectric.com](http://www.lincolnelectric.com)*

#### **TEST RESULTS**

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested according to prescribed standards, and should not be assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to, weld procedure, plate chemistry and temperature, weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding consumable and procedure before use in the intended application.

#### **CUSTOMER ASSISTANCE POLICY**

The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or advice about their use of our products. Our employees respond to inquiries to the best of their ability based on information provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or advice. Moreover, the provision of such information or advice does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose is specifically disclaimed.

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Subject to Change – This information is accurate to the best of our knowledge at the time of printing. Please refer to [www.lincolnelectric.com](http://www.lincolnelectric.com) for any updated information.

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