

# Tech-Rod® 320LR

AWS E320LR-16

## CONFORMANCES

AWS A5.4 E320LR-16

ASME SFA-A5.4 E320LR-16



Tech-Rod® 320LR electrodes are typically used for welding base metals with similar compositions including alloy 20.

Applications: Tanks, Process piping, Heat exchangers for the chemical processing industry

## DIAMETERS / PACKAGING

Diameter in (mm)	Length in (mm)	8 lb (3.6 kg) Tube 24 lb (10.9 kg) Master Carton	10 lb (4.5 kg) Tube 30 lb (13.6 kg) Master Carton
3/32 (2.4)	12 (305)	EL320LR16093632	
1/8 (3.2)	14 (355)		EL320LR16125634
5/32 (4.0)	14 (355)		EL320LR16156634
3/16 (4.8)	14 (355)		EL320LR16187634

**DEPOSIT COMPOSITION**

	%C	%Cr	%Ni	%Mo	%Nb+Ta	%Mn
<b>Requirements</b> AWS E320LR-16	0.03 max.	19.0 - 21.0	32.0 - 36.0	2.0 - 3.0	0.4 max.	1.50 - 2.50
<b>Typical Results</b> Tech-Rod® 320LR	0.02	19.9	33.8	2.3	0.1	1.70
	%Si	%P	%S	%Cu	FN	
<b>Requirements</b> AWS E320LR-16	0.30 max.	0.020 max.	0.015 max.	3.0 - 4.0	Not Required	
<b>Typical Results</b> Tech-Rod® 320LR	0.16	0.016	0.006	3.2	-	

\* Nitrogen in these weld deposits is usually between 0.04% and 0.08%

**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

Material Safety Data Sheets (MSDS) are available on our website at [www.techalloy.com](http://www.techalloy.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**

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