

Tech-Rod[®] 309/309L

AWS E309-16/309L-16

CONFORMANCES

AWS A5.4 E309-16/309L-16

ASME SFA-A5.4 E309-16/309L-16



Tech-Rod[®] 309/309L electrodes have reduced carbon levels (0.04% max) that offers increased resistance to inter-granular corrosion. Type 309/309L is ideal for joining stainless steels to themselves or to carbon or low alloy steels, and can be used at temperatures of up to 700°F (371°C). Reduced carbon levels help prevent intergranular corrosion.

Applications: Do not exceed service temperatures of 700°F (371°C).

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)	EL309L16093632	
1/8 (3.2)	14 (355)		EL309L16125634
5/32 (4.0)	14 (355)		EL309L16156634
3/16 (4.8)	14 (355)		EL309L16187634

DEPOSIT COMPOSITION

	%C	%Cr	%Ni	%Mo	%Mn
Requirements AWS 309L-16	0.04 max.	22.0 - 25.0	12.0 - 14.0	0.75 max.	0.5 - 2.5
Typical Results Tech-Rod® 309/309L	0.03	23.8	12.9	0.06	1.6
	%Si	%P	%S	%Cu	FN
Requirements AWS 309L-16	1.00 max.	0.04 max.	0.03 max.	0.75 max.	Not Required
Typical Results Tech-Rod® 309/309L	0.54	0.02	0.01	0.04	8 - 15

* 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

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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