Techalloy® 309/309L

AWS ER309L

CONFORMANCES

AWS ER309L
UNS 30983
UNS 30980
ISO 14343:2009 (23 12 L)
CWB

Techalloy® 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)	MIG WIRE 33 lb (14.9 kg) Wire Basket	TIG WIRE 10 lb (4.5 kg) Tube 30 lb (13.6 kg) Master Carton	SAW WIRE 55 lb (25 kg) Coil
0.035	(0.9)	MG309L035667		
0.045	(1.2)	MG309L045667		
1/16	(1.6)	MG309L062667	TG309L062638	
3/32	(2.4)		TG309L093638	SA309L093726
1/8	(3.2)		TG309L125638	SA309L125726
5/32	(4.0)		TG309L156638	SA309L156726

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THE LINCOLN ELECTRIC COMPANY
22801 St. Clair Avenue • Cleveland, OH • 44117-1199 • U.S.A.
Phone: +1.216.481.8100 • www.lincolnelectric.com

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DEPOSIT COMPOSITION

	%C	%Cr	%Ni	%Mo	%Mn
Requirements AWS ER309L	0.03 max.	23.0 - 25.0	12.0 - 14.0	0.75 max.	1.0 - 2.5
Typical Performance Techalloy® 309/309L	0.01	23.4	13.6	0.06	1.6
	%Si	**%P**	**%S**	**%Cu**	**FN**
Requirements AWS ER309L	0.30 - 0.65	0.03 max.	0.03 max.	0.75 max.	Not Required
Typical Performance Techalloy® 309/309L	0.38	0.02	0.007	0.07	9 - 14

TYPICAL OPERATING PROCEDURES

Process	Diameter in (mm)	Voltage (volts)	Amperage	Gas Flow	Gas
MIG	0.035 (0.9) 0.045 (1.2) 1/16 (1.6)	26-29 28-32 29-33	160-210 180-250 200-280	30-50 CFH	98/99% Argon + 2/1% Oxygen 97% Argon + 3% CO_2
TIG	1/16 (1.6) 3/32 (2.4) 1/8 (3.2) 5/32 (4.0)		90-130 120-175 150-220 160-230	20 - 40 CFH	100% Argon
SAW	3/32 (2.4) 1/8 (3.2) 5/32 (4.0)	28-33 29-32 30-33	275-350 350-450 400-550		Lincolnweld® P2007

Material Safety Data Sheets (MSDS) are available on our website at www.techalloy.com

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