309L Stainless Steel Seamless Flux Cored

U.S. ALLOY CO.
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WA. ALLOY CO.

Quality Management System
in accordance with
ISO 9001
Cert # 05-R0925

American Welding Society
Sustaining Company Member

GAWDA
GASES AND WELDING DISTRIBUTORS ASSOCIATION

ALLOY DESCRIPTION AND APPLICATION;

E309LT1-1/-4 is a flux cored seamless wire for single or multi-pass welds on stainless steels. Noted for its seamless sheath giving it many outstanding benefits such as; Superior moisture absorption resistance, delivers flawless low diffusible hydrogen levels throughout the entire spool, much lower friction wear on liners and tips, extremely stable and pin point arc generation, excellent bead shape and appearance and ease of slag removal. It has very good deposit efficiency when used for flat and fillet welds of medium and heavy thickness plates while. It has been designed to be used with 100% CO2 or 75-80% Argon + balance CO2 mixed shield gas. E309T-1 is used extensively in the fabrication of type 309 stainless steel structures, furnace parts, high temperature containers, and aircraft heaters. E309T-1 may be used to weld straight chromium type stainless steels (ie: 12Cr 410) when pre-heat and postheat treatment is not possible. E309T-1 may also be used to join stainless steels to mild steel and for stainless cladding of mild and low alloy steels. E309LT0-1/-4 may be more fluid giving a flat to concave bead profile.

TYPICAL GMAW WELDING PROCEDURES; DCEP *75Ar/25Co2*

Wire Diameter	Wire Speed (ipm)	Amps	Volts	Electric stick out	*75Ar/25Co₂* (cfh)
0.035	*325-725*	*125-250*	*21-30*	*½ -1"*	*35-45*
0.045	*225-700*	*150-300*	*25-33*	*½ -3/4"*	*40-50*
1/16"	*125-380*	*170-305*	*23-29*	*¾ -1"*	*40-50*

Based on Flat & Horizontal – add 2 volts with 100% CO_2

Procedures may vary with change in position, base metals, filler metals, equipment and other changes.

E308LT1-1/-4 CHEMISTRY (%) for Undiluted WELD METAL & PROPERTIES

	(AWS Requirements)	*Typical		(AWS Requirements)	*Typical
Carbon	0.04	0.03	Molybdenum	0.75	0.12
Manganese	0.5-2.5	1.32	Phosphorus	0.04	0.026
Silicon	1.00	0.56	Sulfur	0.03	0.003
Chromium	22.0-25.0	23.70	Nickel	12.0-14.0	12.62
Copper	0.75	0.14	FERRITE%		12.2

	AWS Requirements	As Welded
Tensile Strength (psi)	75,000 min.	80,100
Yield Strength (psi)	N/A	68,530
Elongation	30% min.	39%

Iron balance and all single values are maximum percentages unless noted;; **Based on100% CO_2*
All single values on composition are maximum percentages & Total other elements 0.50

AVAILABLE SIZES: TCC SF 309 = Spools of .030, .035, .045, 1/16"

SPECIFICATIONS; **ANSI/AWS** A5.22 E309LT0-1/-4 or E309LT1-1/-4
ASME SFA 5.22 E309LT0-1/-4 or E309LT1-1/-4
ASME F-6, A-8

T0 = flat and horizontal: T1 = all position: -1 is for 100% CO2; -4 = 75-80 Ar /CO2

6-2017 *DC*

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