316L Stainless Steel Seamless Flux Cored

U.S. ALLOY CO.
dba Washington Alloy
7010-G Reames Rd.
Charlotte, NC 28216
www.weldingwire.com

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;

E316LT1-1/-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. E316LT1-1/-4 provides weld deposits with optimum ferrite content as its austenitic structure resulting in low susceptibility to cracking. The extra low carbon content of E316LT-1/-4 provides excellent resistance to inter-granular corrosion and stress corrosion cracking caused by carbide precipitation. E316LT1-1/-4 is used extensively in the fabrication of 18% Cr 12% Ni 2% Mo stainless steel structures, pressure vessels, tanks in dairy, pulp and paper, textile dyeing, refinery and chemical equipment. The extra low carbon content reduces carbide precipitation. E316LT1-1/-4 can be used to weld stainless steels of similar compositions when welds are required to meet higher corrosion resistance and higher creep strength requirements along with intergranular corrosion resistance requirements. E316LT0-1/-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/25Co$_2$* (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% C0$_2$

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

E316LT1-1/-4 CHEMISTRY (%) for Undiluted WELD METAL & PROPERTIES

	(AWS Requirements)	*Typical		(AWS Requirements)	*Typical
Carbon	0.04	0.03	Molybdenum	2.0-3.0	2.8
Manganese	0.5-2.5	1.30	Phosphorus	0.04	0.032
Silicon	1.00	0.49	Sulfur	0.03	0.003
Chromium	17.0-20.0	18.54	Nickel	11.0-14.0	12.28
Copper	0.75	0.15	FERRITE%		7.14

	AWS Requirements	As Welded
Tensile Strength (psi)	70,000 min.	81,600
Yield Strength (psi)	N/A	61,750
Elongation	30% min.	42%

Iron balance and all single values are maximum percentages unless noted;; **Based on100% C0$_2$*
All single values on composition are maximum percentages & Total other elements 0.50

AVAILABLE SIZES: TCC SF 316 = Spools of .035, .045, 1/16"

SPECIFICATIONS; **ANSI/AWS** A5.22 E316LT0-1/-4 or E316LT1-1/-4
ASME SFA 5.22 E316LT0-1/-4 or E316LT1-1/-4
ASME F-6 , A-8

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

4-2017 *DC*

EAST COAST
7010-G Reames Rd
Charlotte, NC 28216
Tel (888) 522-8296
Fax (704)598-6673

GULF COAST
4755 Alpine Drive #100A
Stafford, TX 77477
Tel (877) 711-9274
Fax (281)313-6332

WEST COAST
8535 Utica Ave
Rancho Cucamonga, CA 91730
Tel (800)830-9033
Fax (909)291-4586

Warehouse Distribution Center – Portland, Oregon & Boston, Massachusetts Head Office – Puyallup, Washington