



WA. ALLOY CO.

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

PREMIUM 316LT1-1/4 Stainless Steel Flux Cored Welding Wire

U.S. ALLOY CO.
dba Washington Alloy
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Charlotte, NC 28216
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ALLOY DESCRIPTION AND APPLICATION:

PREMIUM E316LT1-1/4 is a flux cored wire for single or multi-pass welds on stainless steels. E316LT-1/4 is noted for its low spatter 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. 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 METAL CORED WELDING PROCEDURES; DCEP OPTIMUM IN BOLD (FLAT)

Wire Diameter	Wire Speed (ipm)	Amps	Volts	Electrical Stickout	Ar/CO ₂ (cfh)
0.045	210- 400 -700	135- 200 -275	24- 27 -30	1/2-1"	35-45
1/16"	150- 330 -490	160- 265 -375	25- 30 -34	1/2-1.25"	40-50

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

TYPICAL WELD METAL CHEMISTRY (%) AND WELD METAL PROPERTIES;

	AWS Spec	PREMIUM E316LT1-1/4		BASED ON 80% Argon 20% CO ₂	
			AWS Spec	PREMIUM E316LT1-1/4	
Carbon	0.04	0.02	Chromium	17.0-20.0	18.62
Manganese	0.05-2.5	1.72	Nickel	11.0-14.0	13.24
Silicon	1.0	0.76	Ferrite		5.0
Phosphorus	0.04	0.021	Tensile Strength (psi)	70,000 min.	80,150
Sulfur	0.03	0.005	Elongation in 2"	30 % min.	42%
Molybdenum	2.0-3.0	2.24	Charpy V-notch at -320°F	N/A	30.1 ft-lbs
Copper	0.75	0.07			

All single values on AWS composition are maximum percentages & Total others elements 0.50 : V=0.05
Radiographic testing requirements ; passed

AVAILABLE SIZES: TCD 316LT1-1 17= Spools of .045 X 33#

Other sizes may be available – please inquire

SPECIFICATIONS; ANSI/AWS A5.22 E316LT1-1/4

ASME SFA A5.22 E316LT1-1/4

**Ask for and Experience all the PREMIUM branded fillers
Washington Alloys has to offer !!**

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