

317LT1-1 Flux Cored Wire

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





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

ALLOY DESCRIPTION AND APPLICATION:

E317LT1-1 is a flux-cored wire for single or multi-pass welds on stainless steels. E317LT1-1 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 shield gas. E317LT-1 provides weld deposits with optimum ferrite content as its austenitic structure resulting in low susceptibility to cracking. The extra low carbon content of E317LT-1 provides excellent resistance to inter- granular corrosion and stress corrosion cracking caused by carbide precipitation. E317LT-1 also provides excellent resistance to pitting corrosion due to its higher Molybdenum content compared to 316LT-1. Used extensively in the fabrication of AISI type 317 stainless steel structures, pressure vessels, and tanks in dairy, pulp and paper, textile dyeing, refinery and chemical equipment. The extra low carbon content reduces carbide precipitation. E317LT-1 can be used to weld stainless steels of similar compositions when welds are required to meet higher resistance requirements. One key advantage of E317LT-1 is its excellent resistance to pitting corrosion in chlorine environments. It is also used for pollution control equipment where the corrosive attack is too severe for E316LT-1 filler metal. E317LT0-1/-4 may be more fluid giving a flat to concave bead profile.

TYPICAL WELDING PROCEDURES; DCEP

| Wire Diameter | Wire Speed (ipm) | Amps | Volts | Electrical Stickout | CO_2 (cfh) |
|---------------|------------------|---------|-------|---------------------|--------------|
| 0.045" | 215-550 | 140-380 | 23-35 | 1/2-1" | 35-50 |
| 1/16" | 125-615 | 150-410 | 24-36 | 5/8-1.25 " | 35-50 |

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

CHEMISTRY (%) for Undiluted WELD METAL & PROPERTIES

| 1 | AWS Requirements) | Typical | | (AWS Requirements) | Typical |
|------------------------|-------------------|-------------------------|------------|--------------------|---------|
| Carbon | 0.04 | 0.03 | Molybdenum | 3.00-4.00 | 3.59 |
| Manganes | e 0.5-2.5 | 1.78 | Phosphorus | 0.04 | 0.024 |
| Silicon | 1.00 | 0.65 | Sulfur | 0.03 | 0.018 |
| Chromium | 18.0-21.0 | 18.95 | Nickel | 12.0-14.0 | 13.30 |
| | | AWS Requirements | | As Welded | |
| Tensile Strength (psi) | | 75,000 min. | | 88,600 | |
| Yield Strength (psi) | | N/A | | 76,750 | |
| Elongation | | 15% min. | | 34% | |

Iron balance and all single values are maximum percentages unless noted

AVAILABLE SIZES: TSF 317LT

 $Other\ sizes\ available-please\ inquire$

SPECIFICATIONS; ANSI/AWS A5.22 E317LT0-1/-4 or E317LT1-1/-4

ASME SFA 5.22 E317LT0-1/-4 or E317LT1-1/-4

ASME F-6, A-8

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

| EAST COAST | GULF COAST | WEST COAST |
|---------------------|-------------------------|----------------------------|
| 7010-G Reames Rd | 4755 Alpine Drive #100A | 8535 Utica Ave |
| Charlotte, NC 28216 | Stafford, TX 77477 | Rancho Cucamonga, CA 91730 |
| Tel (888) 522-8296 | Tel (877) 711-9274 | Tel (800)830-9033 |

Tel (888) 522-8296 Tel (877) 711-9274 Tel (800)830-9033 Fax (704)598-6673 Fax (281)313-6332 Fax (909)291-4586



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Warehouse Distribution Center - Portland, Oregon

Head Office – Puyallup,

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