# 309LT
# 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*

American Welding Society
Sustaining Company Member

GAWDA
GASES AND WELDING DISTRIBUTORS ASSOCIATION

**ALLOY DESCRIPTION AND APPLICATION;**

E309LT1-1/-4 is a flux-cored wire for single or multi-pass welds on stainless steels. The extra low carbon content of E309LT1-1/-4 provides excellent resistance to intergranular corrosion and stress corrosion cracking. E309LT1-1/-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. The high chromium and nickel content of E309LT1-1/-4 provides weld deposits with scaling and heat resistance in addition to corrosion resistance. E309LT1-1/-4 is used extensively in the fabrication of type 309 stainless steel structures, furnace parts, high temperature containers, and aircraft heaters. E309LT1-1/-4 may be used to weld straight chromium type stainless steels (i.e.: 12Cr 410) when pre-heat and post-heat treatment is not possible. E309LT1-1/-4 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 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**

| | AWS Requirements) | Typical | | (AWS Requirements) | Typical |
|---|---|---|---|---|---|
| Carbon | 0.04 | 0.03 | Molybdenum | 0.50 | 0.19 |
| Manganese | 0.50-2.50 | 1.26 | Phosphorus | 0.04 | 0.014 |
| Silicon | 1.00 | 0.68 | Sulfur | 0.03 | 0.011 |
| Chromium | 22.0-25.0 | 23.70 | Nickel | 12.0-14.0 | 12.75 |

| | AWS Requirements | As Welded |
|---|---|---|
| Tensile Strength (psi) | 75,000 min. | 83,600 |
| Yield Strength (psi) | N/A | 61,750 |
| Elongation | 30% min. | 36% |

Iron balance and all single values are maximum percentages unless noted

**AVAILABLE SIZES**: TSF 309LT

Other sizes available – please inquire

**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**

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