



Unibrazed 316LT1

All Position

Classifications: E316LT1-1, E316LT1-4 per AWS A5.22 (Also meets E316T1-1, E316T1-4 per AWS A5.22)

Description:

Unibrazed 316LT1 is an all position electrode composed of 19% chromium, 12.5% nickel, 2.5% molybdenum and a maximum of 0.04% carbon. The molybdenum improves pitting resistance and provides increased creep resistance. The low carbon minimizes carbide precipitation which helps resist intergranular corrosion. **Unibrazed 316LT1** can be used with 100% carbon dioxide shielding or a blend of 75-80% argon/balance carbon dioxide. Shielding gas mixtures with more than 75-80% argon are not recommended. DCEP Reverse Polarity.

Characteristics:

Unibrazed 316LT1 has superb all position performance with excellent slag peeling and has very low spatter.

Applications:

Unibrazed 316LT1 is utilized to weld Type 316 stainless and other similar alloys, such as ASTM A743 and A744, as well as Types CF-8M and CF-3M. It has broad applications in pulp and paper, textile and chemical processing equipment, furnace parts and parts exposed to marine environments.

Typical Mechanical Properties: (CO₂)*

Ultimate Tensile Strength (psi) 81,000
Yield Strength (psi) 63,000
Percent Elongation 39 %

* Strength levels will be slightly higher w/Ar+20-25% CO₂

Typical Weld Deposit Chemistry: (CO₂)

C - 0.03 Mn - 1.35 Cr - 18.90 Si - 0.80 Ni - 12.30 Mo - 2.50 N - 0.05
Ferrite Number (WRC, 1992) - 5

Typical Welding Parameters: (CO₂)**

Diameter	WFS (ipm)	Amperage	Voltage	ESO (in.)	Dep. Rate (lbs/hr)
.035"	300	110	25	5/8-3/4"	3.4
.035"	500	150	26	5/8-3/4"	5.4
.035"	600	165	27	5/8-3/4"	6.3
.035"	700	175	28	5/8-3/4"	7.7
.045"	250	130	24	5/8-3/4"	5.4
.045"	300	160	26	5/8-3/4"	6.3
.045"	425	200	28	5/8-3/4"	9.2
.045"	780	270	34	5/8-3/4"	16.2
1/16"	150	170	25	3/4-1"	5.4
1/16"	195	215	27	3/4-1"	7.0
1/16"	240	250	28	3/4-1"	8.6
1/16"	320	305	29	3/4-1"	11.5

** Optimum conditions are in boldface type. Reduce by 2 volts when using Ar+20-25% CO₂.

Unibrazed all position electrodes do not contain bismuth

Notice: The results reported are based upon testing of the product under controlled laboratory conditions in accordance with American Welding Society Standards. Actual use of the product may produce different results due to varying conditions. An example of such conditions would be electrode size, plate chemistry, environment, weldment design, fabrication methods, welding procedure and service requirements. Thus the results are not guarantees for use in the field. The manufacturer disclaims any warranty of merchantability or fitness for any particular purpose with respect to its products.