



# Unibraze 317LT1

All Position

## Classifications:

E317LT1-1, E317LT1-4 per AWS A5.22 (Also meets E317T1-1, E317T1-4 per AWS A5.22)

## Description:

The Unibraze 317LT1 all position, stainless steel electrode has a nominal weld metal composition of 19.5% chromium, 13% nickel, 3.5% molybdenum and a maximum carbon content of .04%. Its higher level of molybdenum improves resistance to pitting and provides increased creep resistance.

## Characteristics:

Unibraze 317LT1's low carbon content minimizes carbide precipitation and maximizes resistance to intergranular corrosion. It also resists pitting corrosion. This electrode achieves flat, well-washed beads with minimal weaving with exceptional slag peeling and produces very low spatter.

## Applications:

Containing higher molybdenum content than 316L-AP gives the Unibraze 317LT1 better resistance to pitting corrosion. This electrode offers excellent resistance to solutions of sulfuric acid and sulfur bearing gases. It is used to weld types 316 and 317 stainless. Unibraze 317LT1 is ideal for applications in the pulp and paper industry and for welding food and pharmaceutical equipment.

**Diameters:** .045", 1/16"

**Shielding Gases:** 100% CO<sub>2</sub>, 75-80% Ar/balance CO<sub>2</sub>, 40-50 cfh

**Welding Positions:** All positions

## Typical Mechanical Properties: (CO<sub>2</sub>)\*

Ultimate Tensile Strength (psi) 90,000  
Yield Strength (psi) 69,000  
Percent Elongation 34 %

\* Strength levels will be slightly higher w/Ar+20-25% CO<sub>2</sub>

## Typical Weld Deposit Chemistry: (CO<sub>2</sub>)

C - 0.03 Mn - 1.00 Cr - 19.20 Si - 0.70 Ni - 12.80 Mo - 3.30 N - 0.05

Ferrite Number (WRC, 1992) - 8

## Typical Welding Parameters: (CO<sub>2</sub>)\*\*

Diameter	WFS (ipm)	Amperage	Voltage	ESO (in.)	Dep. Rate (lbs/hr)
.045"	250	130	24	5/8-3/4"	5.4
<b>.045"</b>	<b>300</b>	<b>160</b>	<b>26</b>	<b>5/8-3/4"</b>	<b>6.3</b>
<b>.045"</b>	<b>425</b>	<b>200</b>	<b>28</b>	<b>5/8-3/4"</b>	<b>9.2</b>
.045"	780	270	34	5/8-3/4"	16.2
1/16"	150	170	25	3/4-1"	5.4
<b>1/16"</b>	<b>195</b>	<b>215</b>	<b>27</b>	<b>3/4-1"</b>	<b>7.0</b>
<b>1/16"</b>	<b>240</b>	<b>250</b>	<b>28</b>	<b>3/4-1"</b>	<b>8.6</b>
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% CO<sub>2</sub>.

*Unibraze 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.