



# Unibraze 316LFCT

## Flux Coated TIG

### International Specifications:

AWS/ASME A5.9-93 ER316L (Weld Deposit)

### Description:

**Unibraze 316LFC** is a flux coated, stainless steel TIG wire designed to eliminate the expense and time associated with purging pipes with inert backing gases. It is an extremely low carbon stainless steel alloy with Mo added to provide superior corrosion resistance. Recommended current: DC Straight (-) Welding Positions: Flat, Horizontal, Vertical up  
Flux Color: Yellow

### Microstructure:

Austenite with 3-9% ferrite. Typical Ferrite Number: 6

### Applications:

**Unibraze 316LFC** is especially well suited for welding stainless steel pipe wherever a backing ring or a purge gas is required in order to provide impurity free weldments. This is necessary during stainless pipe welding in the chemical and petro-chemical industries.

### Typical All Weld Metal Analysis

C	Mn	Si	S	P	Cr	Ni	Mo	Cu	Fe
.02	.9	.75	.01	.02	19	12	2.65	.1	Bal

### Typical Mechanical Properties:

#### Undiluted Weld Metal

Tensile Strength	80,000 PSI (550 N/mm <sup>2</sup> )
Yield Strength	56,000 PSI (390 N/mm <sup>2</sup> )
Percent Elongation	42 %
Impact Energy	40J: -157°F (-105°C)
Hardness	Brinell 209, Rockwell B96

### Typical Deposition Rates

<u>Diameter</u>	<u>Length</u>	<u>Weldmetal</u>	<u>Rods per lb of Weldmetal</u>	<u>Arc Time of Deposition Min/lb</u>	<u>Amperage Setting</u>	<u>Recovery Rate</u>
3/32"	18"	1.5oz	10	21	80	100%
(2.4mm)	(450mm)	(44g)	(22kg)	(46kg)		
1/8"	18"	2.0oz	8	18	100	100%
(3.2mm)	(450mm)	(58g)	(18kg)	(40kg)		

### Welding Techniques:

Clean weld surfaces carefully to remove all scale and corrosion. Sections over 3mm should be beveled to permit complete penetration. Clean joint surface using a stainless steel brush. 2% thoriated tungsten electrode, . Straight polarity.

**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.