



Manufacturers of Custom Welding Lines for Resale  
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# SELECTRODE 6316 316L Flux Coated Tig

## INTERNATIONAL CLASSIFICATIONS

AWS/ASME A 5.9 ER 316L

EN 12072: W 19 123 L

## FEATURES & APPLICATIONS

6316 TIG rod is an extremely low carbon stainless steel Alloy with molybdenum added to provide superior corrosion resistance. It 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 steel pipe welding in the chemical and petro-chemical industries.

A special 316L TIG alloy coated with our unique Vari-Flow fluxing system

- A very special TIG wire that eliminates the expense and wasted time associated with purging pipes with inert backing gasses
- Easy to handle 18 inch (450mm) length works in multiple positions without having to bend the wire.
- Can be ordered in grade 308L as item number 6308.
- Any other grade of stainless can be manufactured in 100 pound (45kg) per diameter minimum quantities.

## ALL WELD METAL ANALYSIS (TYPICAL WEIGHT %)

**Microstructure:** Austenite with 3-9% ferrite. Typical ferrite number is 6.

**Flux Color:** Yellow

C	Mn	Si	S	P	Cr	Ni	Mo	Cu	Fe
.018	1.9	.60	.01	.02	19.13	12.01	2.65	.1	bal

## TYPICAL MECHANICAL PROPERTIES

<b>Undiluted Weld Metal</b>	<b>Maximum Value Up to:</b>
Tensile Strength	80,000 PSI (550 MPa)
Yield Strength	56,000 PSI (390 MPa)
Elongation	42%
Impact Energy	40J: -157°F (-105°C)
Hardness	Brinell 209, Rockwell B96

## WELDING CURRENT & INSTRUCTIONS

**Recommended Current:** DC Straight (-)

**Recommended Amperage Settings:**

Diameter (mm)	3/32 (2.5)	1/8 (3.25)
Minimum Amperage	60	80
Maximum Amperage	100	120

**Welding Techniques:** Clean weld surface 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. Use DC - (straight polarity), 2% thoriated tungsten electrode.

**Welding Positions:** Flat, Horizontal, Vertical up

**Deposition Rates:**

Diameter (mm)	Length (mm)	Weldmetal/Rods	Rods per lb (kg) of Weldmetal	Arc Time of Deposition min/lb (kg)	Amperage Setting	Recovery Rate
3/32 (2.5)	18" (450)	1.5oz (44g)	10 (22)	21 (46)	80	100%
1/8 (3.25)	18" (450)	2.0oz (58g)	8 (18)	18 (40)	100	100%

### APPROXIMATE ELECTRODE PACKAGING & DIMENSIONS

Diameter (mm)	3/32 (2.5)	1/8 (3.25)
Length (mm)	18" (450)	18" (450)
Electrodes / lb	14	10
Electrodes / kg	31	22