



Manufacturers of Custom Welding Lines for Resale
www.selectrode.com

SELECTRODE 6309 309L Flux Coated Tig

INTERNATIONAL CLASSIFICATIONS

AWS/ASME A 5.9 ER 309L

EN 12072: W 23 12 L

FEATURES & APPLICATIONS

6309 TIG rod is an extremely low carbon stainless steel alloy with a ferrite content suitable for welding dissimilar steels. 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 309L 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
.015	1.9	.4	.01	.02	23.2	13.8	.1	.08	Bal.

TYPICAL MECHANICAL PROPERTIES

Undiluted Weld Metal	Maximum Value Up to:
Tensile Strength	90,000 PSI (620 MPa)
Yield Strength	66,000 PSI (420 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
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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