

COMWELD 309L



- ▲ Resealable 5kg Plastic Tube.
- ▲ Suitable for Gas and GTA (TIG) Welding.
- ▲ End Stamped with AS / AWS Class '309L'.
- ▲ RED COLOUR CODED Pack Label for Instant I.D.

Classifications:

AS 1167.2:	R309L.
AWS/ASME-SFA A5.9:	ER309L.

Description and Applications:

Comweld 309L stainless steel is a high quality low carbon rod for the Gas or Gas Tungsten Arc (TIG) welding of highly alloyed 309 or 309L type stainless steels. Comweld 309L is also suitable for the dissimilar joining of other 300 series austenitic stainless steels to ferritic steels.

Procedure for Gas (Oxy-acetylene) Welding:

1. Thoroughly clean all areas to be welded.
2. Adjust flame to a neutral setting.
3. Apply a Stainless Steel flux to filler rod and joint areas.
4. Preheat thicker joint sections.
5. Heat a small area of the joint until molten and progressively add Comweld 309L filler rod to the weld pool. Ensure the rod is melted by the molten weld pool and not the flame.
6. Allow completed joint to cool and remove residual flux by grinding and wire brushing. For the best cleaning and finishing results use CIGWELD "ChromeBright" pickling paste (Part No. 321918).

Procedure for Gas Tungsten Arc (TIG) Welding:

1. Thoroughly clean all areas to be joined.
2. For the butt welding of thick plate, bevel edges to 60°-70° included angle.
3. Use a Thoriated or Ceriated tungsten electrode, ground to a sharp needle point making sure the grinding lines run with the length (longitudinally) of the electrode's axis. The length of the needle point should be approximately 2-3 x the diameter of the tungsten electrode.
4. Use Direct Current Electrode Negative (DC-) and Welding Grade Argon.
5. Preheat surfaces to be welded. Heat a spot on the base metal until it shows signs of melting and progressively add the filler rod to the weld pool.
6. For the best cleaning and finishing results use CIGWELD "ChromeBright" pickling paste (Part No. 321918).

WELD DEPOSIT PROPERTIES:

Typical Weld Metal 0.2% Proof Stress	440 MPa.
Typical Weld Metal Tensile Strength	590 MPa.
Approximate Melting Point	1400°C
Weld Metal Density	7.95 gms / cm ³
All Weld Metal Microstructure	Austenite with 15 - 20 % ferrite

TYPICAL ROD ANALYSIS:

C: 0.015%	Mn: 1.90%	Si: 0.45%
Cr: 23.5%	Ni: 13.5%	P: 0.020%
S: 0.005%	Fe: Balance	

COMPARABLE CIGWELD PRODUCTS:

Satinchrome 309Mo-17 electrode
AWS A5.4: E309Mo-17
Murex Speedex 309L
AWS A5. 4: E309L-16
Autocraft 309LSi GMAW wire
AWS A5.9: ER309LSi
Shieldcrome 309LT FCAW wires
AWS A5.22: E309LT1-1/4

Packaging Data:

Rod Size (mm)	Pack Weight/Type	Approximate Rods/kg	Part No
1.6 x 914	5kg Tube*	69	321403
2.4 x 914	5kg Tube*	30	321404

* Resealable