

COMWELD 316L


- ▲ Resealable 5kg Plastic Tube.
- ▲ Suitable for Gas and GTA (TIG) Welding.
- ▲ End Stamped with AS / AWS Class '316L'.
- ▲ GOLD COLOUR CODED Pack Label for Instant I.D.

Classifications:

AS 1167.2: R316L
 AWS/ASME-SFA A5.9: ER316L
 EN ISO 14343-B: SS316L

Description and Applications:

Comweld 316L stainless steel is a high quality low carbon rod for the Gas or Gas Tungsten Arc (TIG) welding of Molybdenum bearing stainless steels; in particular matching 316 and 316L alloys.

Comweld 316L is also suitable for the general welding of other 300 series stainless steels including 302 and 304; as well as ferritic stainless steels grades such as 409, 444 and 3Cr12.

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 316L 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 plates, bevel edges to 60°-70° included angle.
3. Use a 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	470 MPa.
Typical Weld Metal	
Tensile Strength	640 MPa.
Approximate Melting Point	1400°C
Weld Metal Density	7.95 gms / cm ³
All Weld Metal	
Microstructure	Austenite with 7 – 10 % ferrite

TYPICAL ROD ANALYSIS:

C: 0.012%	Mn: 1.57%	Si: 0.50%
Cr: 19.00%	Ni: 12.6%	Mo: 2.50%
P: 0.015%	S: 0.001%	Fe: Balance

COMPARABLE CIGWELD PRODUCTS:

Satincrome 316L-17 electrode
 AWS A5.4: E316L-17
 Autocraft 316LSi GMAW wire
 AWS A5.9: ER316LSi
 Verti-Cor 316LT FCAW wires
 AWS A5.20: E316LT1-1/4

Packaging Data:

Rod Size (mm)	Pack Weight /Type	Approximate Rods/kg	Pack Part No.
1.6x914	5kg Tube*	69	321400
	25 Rod Handipack	-	322054
2.4 x 914	5kg Tube*	30	321401

* Resealable