

COMWELD 316LSi



- Resealable 5kg Plastic Tube.
- Suitable for Gas and GTA (TIG) Welding.
- For welding 18% Cr-8% Ni and 18% Cr-10%Ni-3% Mo. Alloys
- Gold Colour Coded Pack Label for Instant I.D.

Classifications:

AS 1167.2: R316LSi

AWS/ASME-SFA A5.9: ER316LSi

Description and Applications:

Comweld 316LSi is a bare, corrosion-resistant, chromium-nickel-molybdenum rod for welding austenitic stainless alloys of the 18% Cr-8% Ni and 18% Cr-10% Ni-3% Mo types. Comweld 316LSi has good general corrosion resistance, particularly to corrosion in acid and chlorinated environments. The alloy has a low carbon content which makes it particularly recommended when there is a risk of intergranular corrosion. The higher silicon content improves the welding properties such as wetting. The alloy is widely used in the chemical and food-processing industries, as well as in shipbuilding and various types of architectural structure.

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 316LSi 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)

TYPICAL ROD ANALYSIS:

C: 0.01%	Mn: 1.8%	Si: 0.9%
Cr: 18.4%	Ni: 12.2%	Mo: 2.6%
Cu: 0.12%	Fe: Balance	

WELD DEPOSIT PROPERTIES:

Typical Weld Metal 0.2%	
Proof Stress	500 MPa.
Typical Weld Metal	
Tensile Strength	630 MPa.
Approximate Melting Point	1400°C
Weld Metal Density	7.95 gms / cm ³
All Weld Metal	
Microstructure	Austenite with 7 – 9 % ferrite

COMPARABLE CIGWELD PRODUCTS:

Autocraft 316LSi GMAW wire
 AWS A5.9: ER316LSi

Packaging Data:

Rod Size (mm)	Pack Weight /Type	Approximate Rods/kg	Pack Part No.
1.6	5kg Tube	69	321426
2.4	5kg Tube	30	321427