

UGIWELD 309LM (MIG 309LSi)

AWS A5.9 ER309LSi

EN ISO 14343-A 23 12 L Si



MIG Solid wire for welding of corrosion resistant materials and dissimilar materials

General description:

UGIWELD 309LM (TIG 309LSi) is a solid wire designed for gas metal arc welding (GMAW/MIG) intended for welding corrosion-resistant stainless steels of similar composition, as well as for dissimilar welding between stainless steels to carbon steels and cladding applications.

An increased silicon (Si) content enhances weld pool fluidity and wetting characteristics, resulting in improved bead appearance and reduced risk of lack of fusion.

Purity is a critical factor when welding high-alloyed materials. The weld zone shall be kept completely free from contamination to avoid defects and to preserve corrosion resistance.

When cladding carbon steel, the chemical composition of the first weld layer will typically correspond to AISI 304, due to dilution from the base material.

The interpass temperature shall not exceed 150 °C, and the heat input should be limited to a maximum of 2.0 kJ/mm to ensure proper weld metal properties and microstructure.

Welding positions:



Welding current:

DC+

Gas flow:

14-18 l/min.

Chemical composition of welding wire:

C	Si	Mn	Ni	Cr	Mo	Cu			
Max 0.03	0.65-1.0	1.0-2.5	12.0-14.0	23.0-25.0	Max 0.5	Max 0.5			

Shielding gas:

Argon + Oxygen (1 to 3%) or Argon + CO₂ (1 to 2.5%)
Nitrogen and hydrogen are prohibited in shielding gases

Mechanical properties of all-weld metal:

Yield and Tensile Strengths				
Yield Mpa(Rp0.2)	Tensile Mpa(Rm)	Elongation %		
400	600	35		

Packaging information:

0,8 mm: 5kg spool / 15kg spool / 250kg drum
1,0 mm: 5kg spool / 15kg spool / 250kg drum
1,2 mm: 5kg spool / 15kg spool / 250kg drum
1,6 mm: 15kg spool / 250kg drum

Approvals:

DB, CE

Reference / date:

UGIWELD 309LM (MIG 309LSi),
English, 15.04.2026.