

NST MIG 316LSi

AWS: A5.9 ER 316LSi

EN ISO 14343: 2009 G 19 12 3 LSi



Solid wire for welding of corrosion resistant and stainless materials.

General description:

NST MIG 316LSi is a solid, MIG/MAG wire for welding of corrosion resistant materials such as AISI 316, EN 14401, EN 14404 etc.

Normally Argon/CO₂ or Argon/O₂ mix are used as the shielding gas.

This ensures a user friendly, stable welding arc, with less spatter, good visual bead appearance and smooth transition to the parent material.

The wire can be used both with or without Pulse-synching.

It can also be used for welding of Nb- and Ti-stabilized materials (i.e. ASTM 316Ti) when operating

temperature does not exceed 400 °C.

In higher operating temperature a Nb-stabilized welding wire should be used.

"Purity" is the keyword when welding high alloyed materials.

Impurities in the weld, will cause porosity.

Inter-pass temperature should not exceed 150 °C.

Recommended heat input should be low: <2.0kJ/mm, typically between 0.5-2.0 kJ/mm.

The wire gives an Austenitic structure with very low Ferrite (typically 5-9%).

Welding positions:



Welding current:

DC+

Gas flow:

12-20 l/min.

Chemical composition of all-weld-metal:

C	Si	Mn	P	S	Cu	Ni	Cr	Mo	
Max 0.03	0.65-1.0	1.0-2.5	Max 0.03	Max 0.02	Max 0.30	11.0-14.0	18.0-20.0	2.5-3.0	

Shielding gas:

Shielding gas: Ar+2-3% CO₂, Ar+2% O₂.

Purge gas: Ar.

Typical mechanical properties of all-weld-metal:

Yield and Tensile Strengths				
Yield Mpa(Rp0.2)	Tensile Mpa(Rm)	Elongation %		
411	598	40		

Ferrite content(typical):

WRC	De long	Schaeffler	
8.0FN	10.8%	10.5%	

Packaging information:

0,8mm x 5,0kg D200 + 12,5kg D300 + 200kg Ø51cm drum

1,0mm x 12,5kg D300 + 250kg drum

1,2mm x 12,5kg D300 + 250kg drum

1,6mm x 12,5kg D300

Approvals:

TÜV, CE

Reference / date:

NST MIG 316LSi,
English, 04.02.2016.