

# 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/CO<sub>2</sub> or Argon/O<sub>2</sub> 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 welding wire:

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% CO<sub>2</sub>, Ar+2% O<sub>2</sub>.

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.