NST MIG 309 LSi

AWS: A5.9 ER 309LSi
EN ISO 14343: 2009 23 12 LSi

Solid wire for welding of corrosion resistant materials (without Mo) against carbon steel.

General description:

NST MIG 309LSi is a low-carbon, solid MIG/MAG wire for welding of corrosion resistant materials such as AISI 304, EN 1.4301, EN1.4307 against carbon steel. The wire is also used for cladding of carbon steel. Normally an Argon/CO_2 or Argon/O_2 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-syncing.

When cladding carbon steel, the analysis of the weld metal in first layer is equivalent to AISI304.
"Purity" is the keyword when welding high alloyed materials.
Impurities in the weld will cause porosity.
Inter-pass temperature should not exceed 150 °C.
Heat input should not exceed <2.0kJ/mm.
The weld metal will have an Austenitic structure with a low portion of 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	N
Max 0.03	0.65-1.0	1.0-2.5	Max 0.03	Max 0.02	Max 0.30	12.0-14.0	23.0-25.0	Max 0.30	-

Shielding gas:

Shielding gas: Ar+2-3% CO_2, Ar+2% O_2.
Purge gas: Ar.

Typical mechanical properties of all-weld-metal:

Yield and Tensile Strengths				
Yield Mpa(Rp0.2)	Tensile Mpa(Rm)	Elongation %		
410	575	42		

Ferrite content(typical):

WRC	De long	Schaeffler	
8.7FN	12.8%	9.6%	

Packaging information:

1,0mm x 12,5kg D300
1,2mm x 12,5kg D300

Approvals:

TÜV, CE

Reference / date:

NST MIG 309LSi,
English, 04.02.2016.