

# NST MIG Duplex 2209

AWS: A5.9 ER 2209

EN ISO 14343: 2009 22 9 3 N L



## Solid wire for welding of Duplex materials.

### General description:

NST MIG Duplex 2209 is a low-carbon, solid MIG/MAG wire for welding of Duplex materials such as SAF2205. Normally, Argon/CO<sub>2</sub> or Argon/O<sub>2</sub> mix are used as the shielding gas.

This provides a user friendly, stable welding arc with minimum spatter, excellent visual bead appearance and smooth transition to the parent material.

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

"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 needs extra attention with regards to the cooling rate in order to ensure the correct balance between Austenite and Ferrite, typically between 0.5 and 2.0kJ/mm.

The wire gives an Austenitic-Ferrite weld metal with good mechanical properties combined with good corrosion ability (typically 45-55% ferrite).

### 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	Max 0.90	Max 2.0	Max 0.03	Max 0.02	Max 0.30	7.5-9.5	21.5-23.5	2.5-3.5	0.10-0.20

### Shielding gas:

Shielding gas: Ar+2% O<sub>2</sub>, Ar+2-3% CO<sub>2</sub>.

Purge gas: Ar, Ar+N<sub>2</sub>, N<sub>2</sub>.

### Typical mechanical properties of all-weld-metal:

Yield and Tensile Strengths				
Yield Mpa(Rp0.2)	Tensile Mpa(Rm)	Elongation %		
660	830	30		

### Ferrite content(typical):

WRC	De long	Schaeffler	
50FN	28,6%	55%	

### Packaging information:

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

### Approvals:

### Reference / date:

NST MIG Duplex 2209,  
English, 11.04.2016.