

NST TIG Duplex 2209

AWS: A5.9 ER 2209

EN ISO 14343: 2009 22 9 3 N L



TIG-rod for stainless steel welding.

General description:

NST TIG Duplex 2209 is used for welding Duplex materials such as SAF2205, EN 14462 and similar. Normally Argon or Argon/N₂ mix is used as the shielding gas.

The TIG-rod is used for manual welding of both pipes and plates.

Level of gas flow is dependent upon TIG-rod diameter and specific application.

The balance between Austenite and Ferrite in the weld metal will depend upon welding parameters, choice of gas and cooling rate.

The rod is also suitable for welding of corrosion-

resistant and stainless materials against Duplex materials and also for welding 'Lean' Duplex grades. The TIG-rods are supplied colour coded in yellow with the AWS designation embossed, according to the requirement of the NORSOK standard.

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

Impurities in the weld, will cause porosity.

Welding of pipes require use of purge gas in order to ensure a stainless root face of the weld.

Inter-pass temperature should not exceed 150 °C, and heat input should not exceed 1.5kJ/mm.

Welding positions:



Welding current:

DC-

Gas flow:

10-20 l/min.

Chemical composition of welding rod:

C	Si	Mn	P	S	Cu	Ni	Cr	Mo	
Max 0.03	Max 0.90	Max 2.0	Max 0.03	Max 0.02	Max 0.30	7.5-9.5	21.0-23.5	2.5-3.5	

Shielding gas:

Shielding gas: Ar, Ar+N₂.

Root gas/purge gas: Ar, Ar+N₂, N₂.

Typical mechanical properties of all-weld-metal:

Yield and Tensile Strengths			Charpy Impact Test
Yield Mpa(Rp0.2)	Tensile Mpa(Rm)	Elongation %	Charpy V -46°C
660	830	28	105

Ferrite content:

WRC	De Long	Schaeffler	
50.0FN	28.6%	55.6%	

Packaging information:

1,6mm x 500mm x 2,5 Kg
2,0mm x 500mm x 2,5 Kg
2,4mm x 500mm x 2,5 Kg
1,6mm x 1000mm x 5 Kg
2,0mm x 1000mm x 5 Kg
2,4mm x 1000mm x 5 Kg

Colour coding: Yellow

Approvals:

Reference / date:

NST TIG Duplex 2209,
English, 11.04.2016.