

UGIWELD 45N (TIG Duplex 2209)

AWS A5.9 ER2209

EN ISO 14343-A 22 9 2 N L



TIG-rod for stainless steel welding.

General description:

Ugiweld 45N is a solid wire designed for Tungsten Inert Gas welding (TIG) of duplex stainless steels such as SAF 2205 and equivalent grades, also lean duplex.

Pure Argon or Argon/N₂ mix are normally used as the shielding gas. For root backing gas, pure argon, nitrogen, or argon/nitrogen gas mix is recommended.

The resulting weld metal microstructure, specifically the balance between austenite and ferrite is influenced by welding parameters, gas composition, and cooling rate.

Purity is a critical factor when welding high-alloyed materials. Keep weld zone free of any contaminations.

Single-sided welding requires the use of an appropriate purge (backing) gas to protect the root side of the weld and to ensure optimum corrosion properties and surface quality of the root bead.

The interpass temperature should not exceed 150 °C, and the heat input should be limited to a maximum of 1.5 kJ/mm to maintain the desired microstructure and mechanical properties.

Welding positions:



Welding current:

DC-

Gas flow:

14-18 l/min.

Chemical composition of welding rod:

C	Si	Mn	Ni	Cr	Mo	Cu	N		
Max 0.03	Max 0.90	0.5-2.0	7.5-9.5	21.5-23.5	2.5-3.5	Max 0.50	0.10-0.20		

Shielding gas:

Shielding gas: Argon or Argon+N₂

Backing gas : Pure Argon or Argon+N₂

Mechanical properties of all-weld-metal:

Yield and Tensile Strengths				
Yield Mpa(Rp0.2)	Tensile Mpa(Rm)	Elongation %		
600	750	24		

Packaging information:

1,0 mm: 1000mm x 5kg / 500mm x 2,5kg
1,2 mm: 1000mm x 5kg / 500mm x 2,5kg
1,6 mm: 1000mm x 5kg / 500mm x 2,5kg
2,0 mm: 1000mm x 5kg / 500mm x 2,5kg
2,4 mm: 1000mm x 5kg / 500mm x 2,5kg
3,2 mm: 1000mm x 5kg / 500mm x 2,5kg
4,0 mm: 1000mm x 5kg / 500mm x 2,5kg

Approvals:

DB, CE

Reference / date:

UGIWELD 45N (TIG Duplex 2209),
English, 15.04.2026.