

TIGWELD 307Si

TIG Rods [GTAW]

Stainless and high alloyed steels

CLASSIFICATION:	APPROVALS:	APPLICATION:
EN ISO 14343-A : W 18 8 Mn DIN 8556 : SG-X15 CrNiMn18 8 AWS A-5.9 : ER 307 W.Nr. : 1.4370		Power generation industry Constructions & Engineering Petrochemical and chemical industry

- Austenitic rod for gas shielded welding in the TIG method.
- Recommended for welding dissimilar, armored, austenitic-manganese and difficult-to-weld steels.
- Used as a buffer layer for hardfacing.
- Corrosion resistant weld, high impact strength, good mechanical properties.
- The weld deposit provides exceptionally high ductility and elongation along with excellent fracture toughness.

Application

Making dissimilar joints or joining difficult-to-weld materials (Hardox Milux sheets, etc.), joints in Hadfield steel, tool steels, buffer layers, welding steel with high content of sulfur and phosphorus. Welding of armor plates, rails, turnouts, crane wheels, tensioners. Construction of exhaust manifolds, parts of heat exchangers, devices for processing cellulose pulp, papers, textiles. Used for joining or surfacing in dredging or mining machine parts.

Base material

DIN	W.Nr.
X120 Mn12	1.3401
X2 CrTi 12	1.4512
X20 Cr 13	1.4021
X6 Cr 13	1.4000
High alloyed steels	
High tensile steels	
Austenitic-manganese steels	
Difficult to weld steels	

Typical chemical composition %

C	Si	Mn	Cr	Ni
0,08	<1,00	7,00	18,50	9,00

Typical mechanical properties

Yield strength Re [N/mm2]	>380
Tensile strength Rm [N/mm2]	560-660
Elongation A5 [%]	>35
Impact energy Kv [J]	>40J (20°C) /
Wire/rod type	solid
Welding current	



Welding gas acc. to EN ISO 14175

I1 - Ar / I3 - Ar + >0-95% He /

Welding parameters and packing

Ø	Length [mm]	Weight of packet [kg]
1,6	1000 /	5,0
2,0	1000 /	5,0
2,4	1000 /	5,0
3,2	1000 /	5,0

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