



TIG 318Si



Standards

AWS 5.9

EN ISO 14343-A

W. Nr.

ER 318Si

W 19 12 3 NbSi

1.4576

Description & applications

Filler metal in solid wire sticks for TIG welding of austenitic stainless steels. Grade 318Si is stabilized with Niobium to avoid intergranular corrosion in weldments; the high Silicon content increases the wettability of the molten metal. Niobium also improves creep resistance up to 400 °C.

Typical chemical composition (%)

C max	Mn	Si	Cr	Ni	Mo	S max	P max	Fe
0.03	1.5	0.85	19.0	12.5	2.8	0.02	0.02	Base

Typical mechanical properties of all-weld metal

Rm	Rp 0,2	A5	KV -196°C
620 MPa	450 MPa	35 %	25 J

Operating parameters

Shielding gas recommendations :

EN ISO 14175 II : 100 % Argon 6-12 l/mn Root : Argon, Nitrogen 3-6 l/mn



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