

316LSi Tig

CATEGORY GMAW-GTAW Solid wires

TYPE Austenitic Tig rod with excellent resistance against general corrosion.

APPLICATIONS The alloy is widely used in the chemical and food-processing industries, as well as in shipbuilding and various types of architectural structure.

PROPERTIES 316LSi offers good general corrosion resistance, particularly to corrosion in acid and chlorinated environments. The alloy has a low carbon content which makes it particularly recommended when there is a risk of intergranular corrosion. The higher silicon content improves the welding properties such as wetting and results in a bright seam.

CLASSIFICATION

AWS	A 5.9: ER316LSi
EN ISO	14343-A: W 19 12 3 L Si
DIN: W.Nr.	1.4430

SUITABLE FOR	1.4583	X102CrNiMoNb 18 12	316Cb	UNS S31640
	1.4435	X2CrNiMo 18 14 3 (TP)	316L	.
	1.4436	X4CrNiMo 17 13 3	-	.
	1.4404	X2CrNiMo 17 12 2 (TP)	316L	UNS S31603
	1.4406	-	316LN	UNS S31653
	1.4408	X 5 CrNiMo 19 11 2	316H	.
	1.4401	X4CrNiMo 17 12 2 (TP)	316	UNS S31600
	1.4571	X6CrNiMo 17 12 2	316 Ti	UNS S31635
	1.4580	X6CrNiMoNb 17 12 3	316Cb	.
	1.4406	X2CrNiMoN 17 12 3 (TP)	316LN	.

APPROVALS TUV (12388.00), DB (43.206.04), CE approved

WELDING POSITIONS:



WELD DEPOSIT ANALYSIS

C	Cr	Ni	Mo	Mn	Si	P	S	Cu
<0.03	18.0-20.0	11.0-14.0	2.0-3.0	1.0-2.5	0.65-1.0	<0.03	<0.03	<0.75

MECHANICAL PROPERTIES (TYPICAL)

Heat Treatment	R _{p0,2} MPa	R _m MPa	A ₅ (%)	Impact Energy (J) ISO-V			Hardness HRc / HV
				+20°C	-40°C	-196°C	
AW	440	620	37	120		55	

AW: as welded

WELDING PARAMETERS / PACKING

D (mm)	Welding Parameters		Packing (kg)	
	Current (A) DC-		single	master
1.0 x 1000	20-50		5	25
1.2 x 1000	30-70		5	25
1.6 x 1000	50-80		5	25
2.0 x 1000	70-110		5	25
2.4 x 1000	110-180		5	25
3.2 x 1000	150-250		5	25

REDRYING TEMPERATURE not required

