

INERTROD 318Si is a W 19 12 3 Nb Si type solid TIG welding rod depositing a C-19Cr 12Ni 2.5Mo niobium stabilised weld metal. Suitable for use mainly with Ar shielding gas.

INERTROD 318Si is used for the welding of 316Ti and 316Nb stainless steels in a wide range of applications including the fabrication of pipe, plate and vessel. The weld metal has good resistance to crevice corrosion by oxidising acids.

The increased silicon content promotes weld pool fluidity resulting a smoother weld deposit.

Classification	Approvals	Grade
EN ISO 14343-A: W 19 12 3 Nb Si	DB	●
	TÜV	●
	CE	

Chemical analysis (Typical values in %)

C	Mn	Si	P	S	Cr	Ni	Mo	Nb
0.07	1.75	0.85	≤ 0.025	≤ 0.020	19	12	2.6	0.6

All-weld metal Mechanical Properties

Heat Treatment	Yield Strength (MPa)	Tensile Strength (MPa)	Elongation A5 (%)	Impact Energy ISO - V (J)	
				+20 °C	-110 °C
As Welded	≥ 400	≥ 550	≥ 30	≥ 65	≥ 32

Gas test: 100% Ar

Shielding Gas - EN ISO 14175 : I1

Materials

1.4581 (GX5CrNiMoNb19-10) - 1.4436 (X4CrNiMo17-13-3)

1.4583 (X10CrNiMoNb18-12)

1.4571 (X6CrNiMoTi17-12-2) - 1.4401 (X4CrNiMo17-12-2)

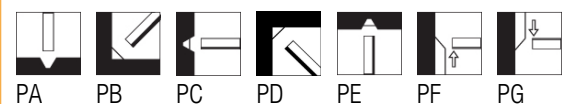
1.4580 (X6CrNiMoNb17-12-2) - 1.4408 (GX5CrNiMo19-11)

Storage

Keep dry and avoid condensation

Current condition and welding position

DC-



Packaging data

Diam. (mm)	Packaging Type	Weight (kg)	Code
1.6	TUB	5	●
2.0	TUB	5	●
2.4	TUB	5	●