

TIG 318Si



TIG 318Si is used to weld titanium or niobium-stabilised grades of molybdenum-bearing austenite stainless steels, or as an alternative electrode for unstabilised grades such as 316/316L. It is not recommended for structural service above 400°C. It is also used for depositing corrosion resistance overlays and valve seat inlays on medium carbon alloy steels.

CLASSIFICATIONS

AWS	A5.9	ER318
BS EN	12072	19 12 3 Nb
DIN	8556	SG X5CrNiMoNb 19 12 (1.4576)

CHEMICAL ANALYSIS

% Carbon	0.045	% Chromium	19.00
% Manganese	1.30	% Nickel	9.5
% Silicon	0.80	% Molybdenum	2.500
% Sulphur	0.010	% Niobium	0.600
% Phosphorus	0.020	% Copper	0.200
		% Ferrite	10.000

**TYPICAL MECHANICAL PROPERTIES
ALL WELD METAL**

Tensile Strength	655 MPa
0.2% Proof Stress	440 MPa
Elongation on 4d	42%
Impact Energy 20°C	90J

Microstructure
Austenite with 3-14FN (3-12% ferrite), typically 10FN.

PACKING DATA

TIG (DC-)

Diameter (mm)	Current		Item Number	Pack Mass (Kg)
	Amps	Volts		
1.60	100	12	030-457	5
2.40	100	12	030-459	5

Suggested Shielding Gas: Argon

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