

OK Tigrod 318Si

Bare corrosion resisting stabilized chromium-nickel-molybdenum wire for welding of Cr-Ni-Mo and Cr-Ni stabilized or non-stabilized steels. OK Tigrod 318Si has a good general corrosion resistance. The alloy is stabilized with niobium to improve the resistance against intergranular corrosion of the weld metal. The higher silicon content improves the welding properties, such as wetting. Due to stabilization of niobium this alloy is recommended for service temperatures up to 400 °C.

Specifications	
Classifications	EN ISO 14343-A : W 19 12 3 Nb Si SFA/AWS A5.9 : ER318 (mod) Werkstoffnummer : ~1.4576
Approvals	CE : EN 13479 DB : 43.039.15 NAKS/HAKC : 2.0 mm VdTÜV : 09737

Approvals are based on factory location. Please contact ESAB for more information.

Alloy Type	Austenitic (with approx. 7 % ferrite) 19% Cr - 12% Ni - 3 % Mo - Nb
Shielding Gas	I1 (EN ISO 14175)

Typical Tensile Properties			
Condition	Yield Strength	Tensile Strength	Elongation
As Welded	460 MPa (67 ksi)	615 MPa (89 ksi)	35 %

Typical Charpy V-Notch Properties	
Testing Temperature	Impact Value
20 °C (68 °F)	40 J (29.5 ft-lb)
-60 °C (-76 °F)	70 J (52 ft-lb)

Typical Wire Composition %							
C	Mn	Si	Ni	Cr	Mo	Cu	Nb
0.05	1.7	0.8	11.9	18.8	2.60	0.10	0.50

Typical Weld Metal Analysis %									
C	Mn	Si	S	P	Ni	Cr	Mo	Cu	Nb
0.04	1.3	0.8	0.01	0.02	12	19	2.8	0.1	0.5