



# Product Data Sheet

W 'Tungsten inert gas arc welding'

# OK Tigrod 318Si

Signed by Mats Linde	Approved by Per-Åke Pettersson/Christos Skodras	Reg no EN005033	Cancelling EN004390	Reg date 2009-11-23	Page 1 (1)
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## REASON FOR ISSUE

Shielding Gas standard up date.

## GENERAL

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.

**Shielding Gas:** I1 (EN ISO 14175)

**Alloy Type:** Austenitic (with approx. 7 % ferrite) 19% Cr - 12% Ni - 3 % Mo - Nb

## CLASSIFICATIONS Wire Electrode

EN ISO 14343      W 19 12 3 NbSi  
Werkstoffnummer    ~1.4576

## APPROVALS

CE                      EN 13479  
DB                      43.039.15  
VdTÜV                  09737

## CHEMICAL COMPOSITION

	All Weld Metal (%)	Wire/Strip (%)	
	Nom	Min	Max
C	0.04		0.08
Si	0.8	0.65	1.00
Mn	1.3	1.0	2.5
P	0.02		0.030
S	0.01		0.020
Cr	19	18.0	20.0
Ni	12	11.0	14.0
Mo	2.8	2.5	3.0
Nb	0.5		1.0
Cu	0.1		0.3
N			0.08
Others tot			0.50

## MECHANICAL PROPERTIES OF WELD METAL

Properties	All Weld Metal	
	As welded	
	Min	Typ
Rp0.2 (MPa)	350	460
Rm (MPa)	550	615
A4-A5 (%)	25	35
Charpy V at 20°C (J)		40