



Cromatig 318Si

GTAW - TIG
Stainless Steel

Date: 2008-01-22
Revision: 6

Description:

Cromatig 318Si is designed for welding the Nb or Ti stabilised 18% Cr/12% Ni/3% Mo austenitic stainless steel grades 316 Cb and 316 Ti. It is primarily intended for use at service temperatures above 400°C, but for structural applications at elevated temperatures the creep strength of the weld metal should always be considered.

Welding current:

DC-

Wire composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min		0,65	1,0			18,0	11,0
Typical	0,04	0,80	1,8	0,015	0,010	19,5	11,5
Max	0,07	1,00	2,5	0,03	0,020	20,0	14,0

	Mo	Cu	Nb
Min	2,0		10xC
Typical	2,7	0,10	0,5
Max	3,0	0,30	1,0

Shielding gas:

Acc. to EN 439:

I1, Ar 99.99, 6-12 l/min.

Stamping

Elga, AWS, Wst, EN, Batch

Ferrite content:

FN 9

Corrosion resistance

Good resistance to general and intergranular corrosion in dilute hot acids. Good resistance to chloride pitting corrosion as well as oxidation and corrosion at elevated temperatures.

Scaling temperature:

Approx. 850°C in air.

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min							
Typical	0,04	0,8	1,8	0,015	0,010	19,0	11,0
Max							

	Mo	Nb
Min		
Typical	2,5	0,5
Max		

Mechanical properties

	<u>Specified</u>	<u>Typical</u>
Yield strength, Rp0.2%:	≥ 350 MPa	400 MPa
Tensile Strength, Rm:	≥ 550 MPa	610 MPa
Elongation, A5	≥ 25%	34%
Impact energy, CV:		20°C • 90 J -120°C • 40 J

Classification:

EN ISO 14343 W 19 12 3 Nb Si
AWS A5.9 ~ER318

Approvals:

TÜV

DB

CE

Kennblatt Nr 43.042.16

Product data

Diam.mm	Length mm	Product code
1,6	1000	9813-1016
2,0	1000	9813-1020
2,4	1000	9813-1024
3,2	1000	9813-1032

Note

AWS A5.9-95: Deviation in Si-content.