



Product Data Sheet

E 'Manual metal-arc welding'

OK 61.85

Prepared by A-C Thorsson	Qualified by Tero Borg	Approved by Tapio Huhtala	Reg no EN007265	Cancelling EN007131	Reg date 2016-05-24	Page 1 (2)
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REASON FOR ISSUE

Diameter 5.0mm added.

GENERAL

Nb-stabilized basic coated electrode designed for welding of Nb- or Ti-stabilized stainless steels of the 19Cr10Ni-type.

OK 61.85 provides the best hot cracking resistance of the products belonging to the 347 range. Due to the relatively high ferrite content level, the maximum working temperature should be limited to 400°C.

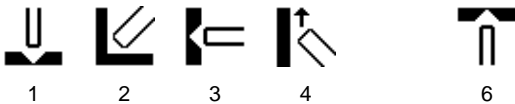
Polarity: DC+

Alloy Type: Austenitic CrNi

Coating Type: Basic

Ferrite Content: FN 6-12

WELDING POSITIONS



CLASSIFICATIONS Electrode

EN ISO 3581-A E 19 9 Nb B 2 2
SFA/AWS A5.4 E347-15
Werkstoffnummer 1.4551

APPROVALS

NAKS/HAKC 2.5-4.0 mm
Seproz UNA 272580
VdTÜV 05663

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max	Nom
C		0.07	
Si	0.20	0.70	
Mn	1.30	2.00	
P		0.025	
S		0.020	
Cr	18.5	20.5	
Ni	9.0	11.0	
Mo		0.3	
Nb		1.00	
Cu		0.3	
N		0.08	
Nb+Ta		1.00	
Ferrite FN			6

Comments:
%(Nb + Ta) > 8 x %C



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MECHANICAL PROPERTIES OF WELD METAL

Properties	ISO As welded		ISO Stress relieved 600°C 16h		AWS As welded
	Min	Typ	Min	Typ	Min
Rp0.2 (MPa)	450	500	450	500	
Rm (MPa)	580	620	580	640	580
A4 (%)					33
A5 (%)	30	40	30	40	
Charpy V at 20°C (J)	80	100	60	80	
Charpy V at -60°C (J)	50	70	32	40	
Charpy V at -120°C (J)	32				

Comments:

Interpass temperature max. 150°C.

ECONOMICS & CURRENT DATA

Dimension (mm) Ø x Length	Current (A)		W	η	N	B	H	T	U	Welding Positions
	Min	Max								
2.5 x 300	55	80	1.7	100	0.60	98	0.9	42	25	1,2,3,4,6
3.2 x 350	75	110	3.3	107	0.62	49	1.2	64	23	1,2,3,4,6
4.0 x 350	80	150	5.0	106	0.61	33	1.6	70	24	1,2,3,4
5.0 x 350	150	200	7.8	106	0.61	21	2.3	76	23	1,2

- W** = Weight (kg / 100 electrodes)
η = Efficiency (g weld metal x 100 / g core wire)
N = Effective value (kg weld metal / kg electrodes)
B = Changes (number of electrodes / kg weld metal)
H = Deposit rate at 90% of max current (kg weld metal / hour arc time)
T = Fusion time at 90% of max current (s / electrode)
U = Arc voltage (V)

OTHER DATA

Hardness data:

As welded condition, V-joint, matching base material: 193 - 220 HV10

Redrying: 200 °C, 2h