Product Data Sheet

E 'Manual metal-arc welding'

OK 63.80

Prepared by	Qualified by	Approved by	Reg no	Cancelling	Reg date	Page
A-C Thorsson	Tero Borg	Tapio Huhtala	EN007273	EN006115	2016-06-01	1 (2)

REASON FOR ISSUE

Approvals revised, NAKS/HAKC added. N and Ferrite FN added under Chemical Composition. Hardness data provided under Other Data.

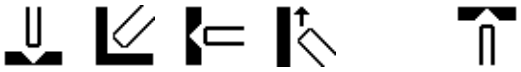
GENERAL

Acid rutile covered MMA-electrode for welding Nb -or Ti-stabilized stainless steels of the CrNiMo 18-12-3 type.

Min AC OCV: 50
Polarity: DC+, AC

Alloy Type: Austenitic CrNi
Coating Type: Acid Rutile
Ferrite Content: FN 6-12

WELDING POSITIONS



1 2 3 4 6

CLASSIFICATIONS Electrode

EN ISO 3581-A	E 19 12 3 Nb R 3 2
SFA/AWS A5.4	E318-17
Werkstoffnummer	1.4576

APPROVALS

CE	EN 13479
NAKS/HAKC	3.2 mm
VdTÜV	00639

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max	Nom
C		0.030	
Si	0.60	1.00	
Mn	0.50	1.20	
P		0.025	
S		0.020	
Cr	17.0	19.0	
Ni	11.0	13.0	
Mo	2.5	3.0	
Nb		0.60	
Cu		0.3	
N		0.12	
Nb+Ta		0.60	
Ferrite FN			7

Comments:
%Nb > 8 x %C

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MECHANICAL PROPERTIES OF WELD METAL

	ISO		AWS	
	As welded		As welded	
Properties	**Min**	**Typ**	**Min**	**Typ**
Rp0.2 (MPa)	350	507	350	
Rm (MPa)	550	614	550	
A4 (%)			30	
A5 (%)	25	38		
Z (%)		51		50
Charpy V at 20°C (J)	47	55		
Charpy V at -60°C (J)	32	41		

Comments:

Interpass temperature maximum 150 °C.

ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	η	N	B	H	T	U	Welding
Ø x Length	Min	Max								Positions
2.0 x 300	45	65	1.2	110	0.56	155	0.8	29	29	1,2,3,4,6
2.5 x 300	60	90	1.9	110	0.56	97	1.1	35	30	1,2,3,4,6
3.2 x 350	80	120	3.6	110	0.61	48	1.4	54	32	1,2,3,4,6
4.0 x 350	120	170	5.5	110	0.61	32	2.1	55	33	1,2,3

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:

Weld metal, as welded condition, matching base material, V-Joint, no buttering, transverse cross section: 227 - 264 HV10

Redrying: 350 °C, 2h.