Product Data Sheet

E 'Manual metal-arc welding'

OK 63.35

Prepared by	Qualified by	Approved by	Reg no	Cancelling	Reg date	Page
A-C Thorsson	Tero Borg	Tapio Huhtala	EN007136	EN006113	2016-02-25	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

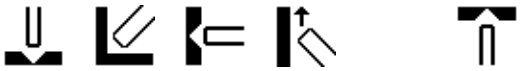
OK 63.35 is a low carbon stainless steel electrode with basic coating of the 18Cr12Ni3Mo type. It is suitable for applications where the mechanical requirements are tough. It provides good impact toughness levels.

Minimum lateral expansion of 0.38mm requirement is met down to -120°C. The same requirement can be met at -196°C when the ferrite content is at the low end of the specification i.e. FN 3 - 4.

Polarity: DC+

Alloy Type: Austenitic CrNi
Coating Type: Basic
Ferrite Content: FN 3-8

WELDING POSITIONS



1 2 3 4 6

CLASSIFICATIONS Electrode

EN ISO 3581-A	E 19 12 3 L B 2 2
SFA/AWS A5.4	E316L-15
Werkstoffnummer	1.4430

APPROVALS

ABS	Stainless
CE	EN 13479
NAKS/HAKC	2.5-4.0 mm
Seproz	UNA 272580
VdTÜV	04812

APPROVAL COMMENT

NAKS/HAKC: Valid for lot numbers starting with SB

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max	Nom
C		0.04	
Si	0.20	0.70	
Mn	1.30	2.00	
P		0.025	
S		0.020	
Cr	17.5	19.5	
Ni	11.0	13.0	
Mo	2.5	3.0	
Cu		0.3	
N		0.08	
Ferrite FN			4

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MECHANICAL PROPERTIES OF WELD METAL

	ISO	AWS	
	As welded	As welded	
Properties	**Min**	**Min**	**Typ**
Rp0.2 (MPa)	370	370	430
Rm (MPa)	520	520	560
A4 (%)		30	40
A5 (%)	30		
Charpy V at 20°C (J)	47		95
Charpy V at -60°C (J)			75
Charpy V at -120°C (J)	32		60
Charpy V at -196°C (J)			35

Comments:

Interpass temp. max. 150 °C.

ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	η	N	B	H	T	U	Welding
Ø x Length	Min	Max								Positions
2.5 x 300	55	85	1.7	105	0.63	91	0.9	42	24	1,2,3,4,6
3.2 x 350	80	120	3.4	105	0.63	47	1.3	58	24	1,2,3,4,6
4.0 x 350	80	180	5.2	105	0.62	32	1.8	63	24	1,2,3,4,6

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:

All weld metal, as welded condition, 2 samples measured: 202 - 229 HV10

Weld metal, matching base material, no buttering, as welded condition, transverse cross section of a V-joint, indents along a vertical line: 179 - 224 HV10

The intergranular corrosion resistance of the product has been tested according to DIN 50 914: It passed without any visible pitting or intergranular corrosion attacks.

Redrying: 200 °C, 2h