Product Data Sheet

E 'Manual metal-arc welding'

OK 69.25

Prepared by	Qualified by	Approved by	Reg no	Cancelling	Reg date	Page
A-C Thorsson	P-O Oskarsson	Tapio Huhtala	EN007401	EN007140	2016-11-08	1 (2)

REASON FOR ISSUE

Hardness data added under Other Data.

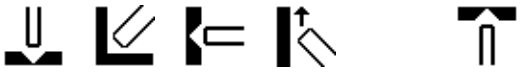
GENERAL

Basic coated stainless electrode for welding corrosion resistant, non-magnetic and cryogenic stainless steels. The electrode is giving a fully austenitic Cr-Ni-Mo weld metal with increased Mn- and N-content.

Polarity: DC+

Alloy Type: CrNiMo
Coating Type: Basic
Ferrite Content: FN <0.5

WELDING POSITIONS



1 2 3 4 6

CLASSIFICATIONS Electrode

EN ISO 3581-A	E 20 16 3 Mn N L B 4 2
SFA/AWS A5.4	E316LMn-15
Werkstoffnummer	1.4455

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max	Nom
C		0.040	
Si	0.20	0.70	
Mn	5.50	7.50	
P		0.030	
S		0.020	
Cr	18.0	20.0	
Ni	15.0	18.0	
Mo	2.7	3.2	
Cu		0.75	
N	0.12	0.20	
Ferrite FN			0

MECHANICAL PROPERTIES OF WELD METAL

	ISO As welded	
Properties	**Min**	**Typ**
Rp0.2 (MPa)	350	450
Rm (MPa)	550	650
A5 (%)	30	35
Charpy V at 20°C (J)	60	90
Charpy V at -196°C (J)	40	50

Comments:

Lateral expansion at -196 °C min. 0.5mm.

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ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	η	N	B	H	T	U	Welding
Ø x Length	Min	Max								Positions
3.2 x 350	70	100	3.7	115	0.62	46	1.2	72	24	1,2,3,4,6
4.0 x 350	100	140	5.3	117	0.64	29	1.8	74	25	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

Redrying 200 °C, 2h.

Hardness data:

As welded condition, transverse cross sections of an ISO-joint, measurements were done along a vertical centre line (8-10 indents) and a horizontal line at top layer (9-10 indents), 2 samples tested: 186 - 236 HV10, average 214 HV10.