



# Product Data Sheet

E 'Manual metal-arc welding'

# OK 63.41

Prepared by A-C Thorsson	Qualified by Tero Borg	Approved by Tapio Huhtala	Reg no EN007238	Cancelling EN007107	Reg date 2016-05-12	Page 1 (2)
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## REASON FOR ISSUE

Approvals revised. DNV amended to DNV-GL.

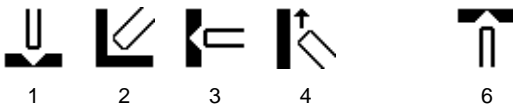
## GENERAL

High-efficiency low carbon stainless steel electrode for welding steels of the type 18 Cr 12 Ni 2-3 Mo.

**Min AC OCV:** 55  
**Polarity:** AC, DC+

**Alloy Type:** Austenitic CrNi  
**Coating Type:** Acid Rutile  
**Ferrite Content:** FN 3-8

## WELDING POSITIONS



## CLASSIFICATIONS Electrode

EN ISO 3581-A    E 19 12 3 L R 5 3  
SFA/AWS A5.4    E316L-26  
Werkstoffnummer    1.4430

## APPROVALS

CE                    EN 13479  
DNV-GL            VL 316 L  
LR                    316L, 316LN  
VdTÜV              01014

## CHEMICAL COMPOSITION

### All Weld Metal (%)

	Min	Max	Nom
C		0.040	
Si	0.50	1.00	
Mn	0.5	1.2	
P		0.025	
S		0.020	
Cr	17.0	19.0	
Ni	11.0	13.0	
Mo	2.5	3.0	
Cu		0.3	
N		0.15	
Ferrite FN			4



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## MECHANICAL PROPERTIES OF WELD METAL

Properties	ISO		AWS
	As welded Min	Typ	As welded Min
Rp0.2 (MPa)	320	470	320
Rm (MPa)	510	570	510
A4 (%)			30
A5 (%)	27	35	
Charpy V at 20°C (J)	47	60	
Charpy V at -60°C (J)	32	52	

### Comments:

Interpass temperature max. 150 °C.

Hardness weld metal HV 180 - 220.

## ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	$\eta$	N	B	H	T	U	Welding Positions
$\varnothing$ x Length	Min	Max								
2.5 x 300	60	90	2.5	150	0.61	65	1.6	35	34	1,2,3,4,6
3.2 x 350	80	130	4.9	150	0.58	35	2.1	50	36	1,2,3
4.0 x 450	110	180	9.4	150	0.60	17	2.9	70	37	1,2,3
5.0 x 450	170	240	14.5	150	0.61	11	4.0	82	42	1,2

**W** = Weight (kg / 100 electrodes)

**$\eta$**  = 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, no buttering, transverse cross section of a V-joint, indents along a vertical line: 203 - 221 HV10

Redrying: 350 °C, 2h.