



# Product Data Sheet

E 'Manual metal-arc welding'

OK 64.30

Prepared by A-C Thorsson	Qualified by Tero Borg	Approved by Tapio Huhtala	Reg no EN007110	Cancelling EN006117	Reg date 2016-02-24	Page 1 (2)
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## REASON FOR ISSUE

N and Ferrite FN added to Chemical Composition. Hardness data provided under Other Data.

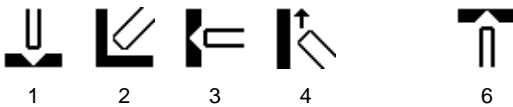
## GENERAL

Extra low carbon rutile covered electrode for welding of 19Cr 13Ni 3-4Mo- type stainless steel.

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

**Alloy Type:** Austenitic CrNiMo  
**Coating Type:** Acid Rutile  
**Ferrite Content:** FN 5-10

## WELDING POSITIONS



## CLASSIFICATIONS Electrode

EN ISO 3581-A    E Z 19 13 4 N L R 3 2  
SFA/AWS A5.4    E317L-17  
Werkstoffnummer    (1.4447)

## APPROVALS

Seproz                    UNA 272580  
VdTÜV                    02311

## CHEMICAL COMPOSITION

	All Weld Metal (%)		
	Min	Max	Nom
C		0.040	
Si	0.50	1.00	
Mn	0.50	1.20	
P		0.025	
S		0.020	
Cr	18.0	20.0	
Ni	12.0	14.0	
Mo	3.5	4.0	
Cu		0.3	
N		0.15	
Ferrite FN			8



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## MECHANICAL PROPERTIES OF WELD METAL

Properties	ISO		AWS	
	Min	Typ	Min	Typ
As welded				
Rp0.2 (MPa)	350	480	350	480
Rm (MPa)	550	600	550	600
A4 (%)			30	35
A5 (%)	25	30		
Z (%)			40	45
Charpy V at 20°C (J)	40	45		

### Comments:

Interpass temperature max. 150 °C.

Hardness weld metal HV 190 - 220.

## 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	50	80	1.9	103	0.56	94	0.8	52	29	1,2,3,4,6
3.2 x 350	60	120	3.5	103	0.56	51	1.4	52	30	1,2,3,4,6
4.0 x 350	80	170	5.4	104	0.56	33	2.1	58	32	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:

Weld metal, as welded condition, matching base material, V-Joint, no buttering, transverse cross section: 197 - 238 HV10

Redrying: 350 °C, 2h.