



Product Data Sheet

E 'Manual metal-arc welding'

OK 67.53

Prepared by A-C Thorsson	Qualified by Tero Borg	Approved by Tapio Huhtala	Reg no EN007116	Cancelling EN006594	Reg date 2016-02-24	Page 1 (2)
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REASON FOR ISSUE

Ferrite content range revised. Ferrite FN and N added under Chemical Composition. Hardness data provided under Other Data.

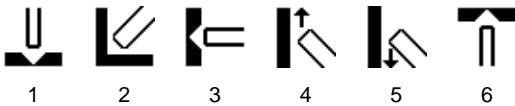
GENERAL

Thin coated rutile MMA-electrode especially designed for pipe welding of duplex stainless steel. i.e. UNS S31803, CrNiMoN22-5-3, CrNiN23-4. Ideal for root runs and positional welding.

Min AC OCV: 55
Polarity: DC+, AC

Alloy Type: Duplex CrNi
Coating Type: Rutile
Ferrite Content: FN 30-45

WELDING POSITIONS



CLASSIFICATIONS Electrode

EN ISO 3581-A E 22 9 3 N L R 1 2
SFA/AWS A5.4 (E2209-16)
Werkstoffnummer 1.4462

APPROVALS

CE EN 13479
VdTÜV 05422

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max	Nom
C		0.030	
Si	0.50	1.20	
Mn	0.5	1.2	
P		0.025	
S		0.020	
Cr	22.0	24.0	
Ni	8.5	10.5	
Mo	3.0	3.5	
Cu		0.3	
N	0.15	0.20	
Ferrite FN			40



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MECHANICAL PROPERTIES OF WELD METAL

Properties	ISO		AWS
	As welded Min	Typ	As welded Min
Rp0.2 (MPa)	550	680	550
Rm (MPa)	690	860	690
A4 (%)			20
A5 (%)	20	25	
Charpy V at 20°C (J)	40	48	
Charpy V at -20°C (J)	32	40	
Charpy V at -30°C (J)	32	37	

Comments:

Interpass temperature max. 150 °C.

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	30	80	1.7	102	0.63	96	0.7	54	23	1,2,3,4,5,6
3.2 x 350	70	110	3.2	97	0.57	51	1.0	64	27	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, indents along vertical line (6 indents), 2 samples tested: 227 - 256 HV10, average 243 HV10

Redrying: 350 °C, 2h.