Product Data Sheet

E 'Manual metal-arc welding'

OK 68.55

Prepared by	Qualified by	Approved by	Reg no	Cancelling	Reg date	Page
A-C Thorsson	Tero Borg	Tapio Huhtala	EN007240	EN007137	2016-05-12	1 (2)

REASON FOR ISSUE

Approvals revised. DNV changed to DNV-GL.

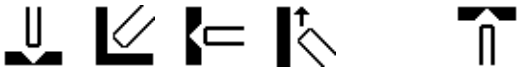
GENERAL

Stainless MMA electrode for welding austenitic-ferritic stainless steels of the so called "Superduplex-type", e.g. SAF 2507 and Zeron 100.

Polarity: DC+

Alloy Type: Austenitic CrNiMo
Coating Type: Basic
Ferrite Content: FN 35-50

WELDING POSITIONS



1 2 3 4 6

CLASSIFICATIONS Electrode

EN ISO 3581-A	E 25 9 4 N L B 4 2
SFA/AWS A5.4	E2594-15
Werkstoffnummer	(1.4410)

APPROVALS

DNV-GL	Duplex

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max	Nom
C		0.04	
Si	0.2	0.7	
Mn	0.50	1.10	
P		0.025	
S		0.015	
Cr	24.5	26.0	
Ni	9.0	10.5	
Mo	3.7	4.3	
Cu		0.75	
N	0.22	0.27	
Ferrite FN			45

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MECHANICAL PROPERTIES OF WELD METAL

	ISO	
	As welded	
Properties	**Min**	**Typ**
Rp0.2 (MPa)	550	700
Rm (MPa)	620	900
A5 (%)	18	28
Z (%)		50
Charpy V at 20°C (J)		90
Charpy V at -20°C (J)		70
Charpy V at -40°C (J)		55
Charpy V at -60°C (J)		45

Comments:

Interpass temperature 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	50	80	1.7	107	0.62	93	0.8	48	23	1,2,3,4,6
3.2 x 350	60	100	3.3	109	0.63	46	1.1	68	23	1,2,3,4,6
4.0 x 350	100	140	5.1	107	0.62	32	1.6	70	23	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: 250 °C, 2h.

Corrosion data, typical values: Streicher-test ASTM A-262, pr B: 0.24 mm/year

CPT-test ASTM G48-76: 60 °C .

Huey-test ASTM A-262, pr C: 0.20 mm/year

SCC-test NACE TM 01-77:

Stress (MPa) : 770 ; 805

Time to fracture (h): 720 ; 22

Comments: No fracture. ; Fracture