Product Data Sheet

E 'Manual metal-arc welding'

OK 67.50

Prepared by	Qualified by	Approved by	Reg no	Cancelling	Reg date	Page
A-C Thorsson	P-O Oskarsson	Tapio Huhtala	EN007369	EN007243	2016-08-31	1 (3)

REASON FOR ISSUE

Approvals revised. RINA added.

GENERAL

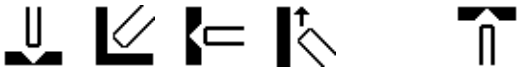
OK 67.50 is an acid rutile coated type for welding of austenitic-ferritic stainless steels of CrNiMoN 22 5 3 - and CrNiN 23 4-types. The duplex all weld metal offers a high strength level combined with good ductility.

The pitting corrosion resistance is good and the all weld metal is not sensitive for stress corrosion cracking.

Min AC OCV: 60
Polarity: DC+, AC

Alloy Type: Duplex CrNiMoN
Coating Type: Acid Rutile
Ferrite Content: FN 35-50

WELDING POSITIONS



1 2 3 4 6

CLASSIFICATIONS Electrode

EN ISO 3581-A	E 22 9 3 N L R 3 2
SFA/AWS A5.4	E2209-17
CSA W48	E2209-17
Werkstoffnummer	1.4462

APPROVALS

ABS	Stainless*	(AWS A5.4 - E2209-17)
BV	2209	
CE	EN 13479	
CWB	CSA W48: E2209-17	
DNV-GL	Duplex	
RINA	2209	
Seproz	UNA 272580	
VdTÜV	04368	

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max	Nom
C		0.030	
Si	0.50	1.00	
Mn	0.50	1.20	
P		0.025	
S		0.020	
Cr	21.5	23.5	
Ni	8.5	10.5	
Mo	2.7	3.3	
Cu		0.3	
N	0.12	0.20	
Ferrite FN			42

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MECHANICAL PROPERTIES OF WELD METAL

	ISO		AWS
	As welded		As welded
Properties	**Min**	**Typ**	**Min**
Rp0.2 (MPa)	450	691	450
Rm (MPa)	690	857	690
A4 (%)			20
A5 (%)	20	25	
Z (%)		45	
Charpy V at 20°C (J)	47	50	
Charpy V at -30°C (J)	32	41	

Comments:

Interpass temperature max. 150 °C.
Lateral expansion at +20 °C >0.7mm.

ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	η	N	B	H	T	U	Welding
Ø x Length	Min	Max								Positions
2.0 x 300	30	65	1.2	103	0.55	152	0.7	33	29	1,2,3,4,6
2.5 x 300	50	90	1.9	108	0.58	91	1.0	38	27	1,2,3,4,6
3.2 x 350	80	120	3.7	108	0.58	47	1.4	55	28	1,2,3,4,6
4.0 x 350	90	160	5.6	108	0.58	32	1.9	59	29	1,2,3,4
5.0 x 350	150	220	8.8	108	0.58	20	2.8	64	30	1,2

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, base material WNr. 1.4462, V-joint, no buttering, transverse cross section, indents along a vertical line (6 indents): 247 - 292 HV10, average 271 HV10

PREN value calculated using the formula: %Cr + 3,3%Mo + 16%N is minimum 35.0.

Pitting corrosion resistance:

Pitting (ASTM G 48, method A, 1976): Tested at +20°C (exposure time 72h) and passed

CPT (ASTM G48, method A with some modifications): Passes the test up to +27.5°C (exposure time 24h). For higher temperatures increased scatter in results.

Intergranular corrosion resistance:

Streicher (ASTM A262-85 a, practice B): Corrosion rate 0.27mm/year

DIN 50 914: Has been tested and passed.

Redrying: 350°C, 2h.