



Product Data Sheet

OK 55.00

E 'Manual metal-arc welding'
ESAB Perstorp AB Sweden

Prepared by P-O Oskarsson	Qualified by Tero Borg	Approved by J-P Ernoult	Reg no EN006945	Cancelling EN006727	Reg date 2015-12-21	Page 1 (2)
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REASON FOR ISSUE

CWB and LR grades updated.

GENERAL

Basic, high quality electrode for welding high strength mild steels. Good , low temperature impact strength and resistance to hot cracking. Also suitable for welding high strength ship steel, grades A,D and E

Min AC OCV: 65 V

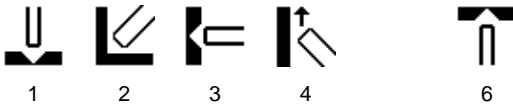
Polarity: AC, DC+

Alloy Type: Carbon Manganese

Coating Type: Lime Basic

Diff Hydrogen: < 4.0 ml/100g

WELDING POSITIONS



CLASSIFICATIONS Electrode

SFA/AWS A5.1	E7018-1H4 R
CSA W48	E4918-1
EN ISO 2560-A	E 46 5 B 32 H5

APPROVALS

ABS	3Y H5
BV	3Y H5
CE	EN 13479
CWB	E4918-1-H4
DB	10.039.03
DNV	4Y H5
GL	3Y H5
LR	3Ym H5
RS	3Y H5
VdTÜV	00632

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max
C	0.05	0.10
Si	0.30	0.70
Mn	1.10	1.60
P		0.030
S		0.030
Cr		0.1
Ni		0.1
Mo		0.1
V		0.03
Nb		0.02
Cu		0.1
Al		0.03
Sn		0.01
Ti		0.03
Pb		0.02
As		0.03



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MECHANICAL PROPERTIES OF WELD METAL

Properties	ISO		AWS
	As welded Min	Max	As welded Min
Rp0.2 (MPa)			400
ReL (MPa)	460		
Rm (MPa)	560	680	490
A4 (%)			22
A5 (%)	22		
Charpy V at -45°C (J)			27
Charpy V at -50°C (J)	47		
	Comments: EN standard requires Rm min 530 Mpa.		Comments:

ECONOMICS & CURRENT DATA

Dimension (mm) Ø x Length	Current (A)		W	η	N	B	H	T	U	Welding Positions
	Min	Max								
2.5 x 350	80	110	2.38	127	0.64	65.8	0.86	63.5	22.6	1,2,3,4,6
3.2 x 350	110	140	3.9	126	0.62	41.1	1.22	72	22.6	1,2,3,4,6
3.2 x 450	110	140	5.0	125	0.69	30.0	1.40	88	24	1,2,3,4,6
4.0 x 450	140	200	7.4	125	0.70	19.0	2.00	94	24	1,2,3,4,6
5.0 x 450	200	270	10.8	125	0.72	13.0	3.00	94	24	1,2,3,4
6.0 x 450	215	360	12.6	125	0.72	9.0	4.00	98	25	1,2,3

- 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

Applications:

Manual metal arc welding of carbon steels, carbon manganese steels and fine grained carbon manganese steels with elevated yield strength.