



Product Data Sheet

OK 48.60

E 'Manual metal-arc welding'
ESAB-MÓR Kft Hungary

Prepared by A-C Thorsson	Qualified by P-O Oskarsson	Approved by J-P Ernoult	Reg no EN007588	Cancelling EN007321	Reg date 2017-07-18	Page 1 (2)
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REASON FOR ISSUE

ABS approval revised.

GENERAL

General purpose basic DC+ electrode for mild and low alloy steels.
Very good running characteristics.

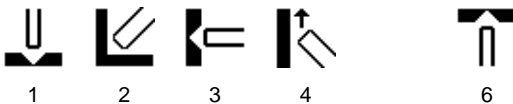
Polarity: DC+

Alloy Type: Carbon Manganese

Coating Type: Basic covering

Diff Hydrogen: < 5.0 ml/100g

WELDING POSITIONS



CLASSIFICATIONS Electrode

SFA/AWS A5.1 E7018
EN ISO 2560-A E 42 4 B 42 H5

APPROVALS

ABS 3Y H5
BV 3, 3Y H5
CE EN 13479
DB 10.039.23
DNV 3 YH5
GL 3YH5
LR 3Y H5
VdTÜV 10094

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max
C	0.02	0.10
Si	0.30	0.70
Mn	0.90	1.40
P		0.020
S		0.020
Cr		0.2
Ni		0.30
Mo		0.20
V		0.050
Nb		0.050
Cu		0.30
Mn+Ni+Cr+Mo+V		1.75



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MECHANICAL PROPERTIES OF WELD METAL

Properties	ISO			AWS
	As welded Min	Max	Typ	As welded Min
Rp0.2 (MPa)				400
ReL (MPa)	420		445	
Rm (MPa)	530	640	540	490
A4 (%)				22
A5 (%)	22		28	
Charpy V at -30°C (J)			80	27
Charpy V at -40°C (J)	47		70	
	Comments: EN standard requires Rm min 500 MPa and A5 min 20%.			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	70	110	2.5	129	0.67	65	0.96	57	24	1,2,3,4,6
3.2 x 350	90	140	3.7	123	0.70	42	1.24	68	23	1,2,3,4,6
3.2 x 450	90	140	4.7	124	0.73	31	1.33	85	23	1,2,3,4,6
4.0 x 350	120	190	5.5	118	0.70	29	1.63	75	24	1,2,3,4,6
4.0 x 450	120	190	7.0	118	0.71	22	1.76	92	24	1,2,3,4,6
5.0 x 450	190	260	10.6	119	0.75	13	2.61	99	24	1,2,3,4

- 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)