



Product Data Sheet

OK 48.05

E 'Manual metal-arc welding'
ESAB AB Sweden

Prepared by A-C Thorsson	Qualified by Tero Borg	Approved by J-P Ernoult	Reg no EN007225	Cancelling EN007094	Reg date 2016-05-11	Page 1 (2)
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REASON FOR ISSUE

DNV-GL approval.

GENERAL

General-purpose basic DC electrode for mild and low alloyed steels. Very good running characteristics especially on DC+. Good running even at low currents which, for instance, is an advantage in welding of thin walled pipes. The coating is of Low Moisture Absorption type.

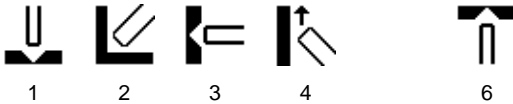
Polarity: DC+(-)

Alloy Type: Carbon Manganese

Coating Type: Lime Basic

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
CE EN 13479
DB 10.039.02
DNV-GL 3 YH5
LR 3Ym H5
Sepro UN A 272580
VdTÜV 06610

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max
C	0.02	0.10
Si	0.30	0.70
Mn	0.75	1.25
P		0.020
S		0.015
Cr		0.1
Ni		0.1
Mo		0.06
V		0.04
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	Typ	As welded Min
Rp0.2 (MPa)				400
ReL (MPa)	420		445	
Rm (MPa)	530	640	540	490
A4 (%)				22
A5 (%)	22		29	
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)	Current (A)		W	η	N	B	H	T	U	Welding Positions
\varnothing x Length	Min	Max								
2.0 x 300	35	80	1.34	132.2	0.627	119	0.6	50.1	22	1,2,3,4,6
2.5 x 350	75	105	2.5	134	0.64	62.5	1.00	58	24	1,2,3,4,6
3.2 x 350	95	155	4.0	122	0.46	54.3	1.50	61	26	1,2,3,4,6
3.2 x 450	95	155	5.2	122	0.61	31.3	1.50	80	26	1,2,3,4,6
4.0 x 450	125	210	7.3	123	0.67	20.5	2.10	85	24	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)