Product Data Sheet

OK 48.04

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

Prepared by	Qualified by	Approved by	Reg no	Cancelling	Reg date	Page
Helene Rasmuson	Tero Borg	J-P Ernoult	EN007226	EN006505	2016-05-11	1 (2)

REASON FOR ISSUE

DNV-GL approval.

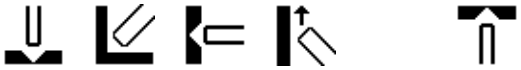
GENERAL

AC/DC , general purpose, LMA electrode for welding mild and low alloy steels. It has very good welding properties and deposits a high quality weld metal with good mechanical properties. The electrode can be used be used for welding restrained structures where high stresses cannot be avoided

Min AC OCV: 65 V
Polarity: AC, DC+(-)

Alloy Type: Carbon Manganese
Coating Type: Lime Basic
Diff Hydrogen: <5.0 ml/100g

WELDING POSITIONS



1 2 3 4 6

CLASSIFICATIONS Electrode

SFA/AWS A5.1	E7018
EN ISO 2560-A	E 42 4 B 32 H5

APPROVALS

ABS	3Y H5
ABS	AWS A5.1 - E7018
BV	3Y H5
CE	EN 13479
DNV-GL	3 YH5
LR	3Ym H15
NAKS/HAKC	2.5-5.0 mm
PRS	3Y H5
RS	3Y H5
Seproz	UNA 272580

APPROVAL COMMENT

NAKS/HAKC: Valid for lot numbers starting with SB

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max
C	0.02	0.10
Si	0.20	0.60
Mn	0.85	1.35
P		0.030
S		0.030
Cr		0.20
Ni		0.30
Mo		0.20
V		0.050
Nb		0.050
Cu		0.30

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MECHANICAL PROPERTIES OF WELD METAL

	ISO			AWS
	As welded			As welded
Properties	**Min**	**Max**	**Typ**	**Min**
Rp0.2 (MPa)				400
ReL (MPa)	420		480	
Rm (MPa)	500	640	560	490
A4 (%)				22
A5 (%)	20		28	
Charpy V at -30°C (J)			110	27
Charpy V at -40°C (J)	47		100	

ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	η	N	B	H	T	U	Welding
Ø x Length	Min	Max								Positions
2.5 x 350	75	110	2.4	125	0.64	67.0	1.00	59	23	1,2,3,4,6
3.2 x 350	90	155	3.8	123	0.63	42.3	1.37	62.4	22	1,2,3,4,6
3.2 x 450	90	155	5.0	125	0.67	30.0	1.50	92	25	1,2,3,4,6
4.0 x 450	125	200	7.4	125	0.68	20.0	2.00	101	26	1,2,3,4,6
5.0 x 450	190	260	10.6	125	0.72	13.0	2.80	106	26	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)

OTHER DATA

Diffusible hydrogen in the weld metal according to the mercury method <5.0 ml/100 g weld metal.

Applications:

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