



# Product Data Sheet

# OK 48.08

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 EN007336	Cancelling EN007224	Reg date 2016-08-01	Page 1 (2)
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## REASON FOR ISSUE

Coating and alloy type amended.

## GENERAL

Basic universal electrode with very good welding characteristics, especially designed for welding of carbon steels, carbon manganese steels and fine grained carbon manganese steels with elevated yield strength. Typical field of application is offshore construction.

The weld metal alloyed with approximately 0.9% Ni fulfills the requirements on impact toughness at -50°C.

The coating is of low moisture absorption type. The electrode is CTOD tested.

**Min AC OCV:** 65

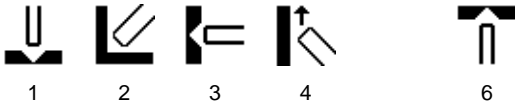
**Polarity:** AC, DC+(-)

**Alloy Type:** Low alloyed (0.9 % Ni)

**Coating Type:** Basic covering

**Diff Hydrogen:** < 5.0 ml/100g

## WELDING POSITIONS



## CLASSIFICATIONS Electrode

SFA/AWS A5.5	E7018-G
EN ISO 2560-A	E 46 5 1Ni B 32 H5

## APPROVALS

ABS	3Y H5
CE	EN 13479
DB	10.039.31
DNV-GL	4 Y40H5
LR	4Y40m H5
NAKS/HAKC	2.5-5.0 mm
RS	4Y H5
VdTÜV	05778

## APPROVAL COMMENT

NAKS/HAKC: Valid for lot numbers starting with SB

## CHEMICAL COMPOSITION

### All Weld Metal (%)

	Min	Max
C	0.02	0.10
Si	0.15	0.55
Mn	0.95	1.4
P		0.020
S		0.015
Cr		0.1
Ni	0.70	0.99
Mo		0.06
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	Typ	As welded Min
Rp0.2 (MPa)				400
ReL (MPa)	460		540	
Rm (MPa)	560	680	630	490
A4 (%)				22
A5 (%)	22		26	
Charpy V at -50°C (J)	47		115	
Charpy V at -60°C (J)	47		90	
	Comments: EN standard requires Rm min 530 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								
2.0 x 300	55	80	1.3	114	0.57	135.1	0.60	42	22	1,2,3,4,6
2.5 x 350	75	110	2.0	94	0.57	88	1.0	41	27	1,2,3,4,6
3.2 x 350	110	150	3.8	125	0.62	42.3	1.30	66	22	1,2,3,4,6
3.2 x 450	110	150	5.0	130	0.66	30.0	1.40	85	22	1,2,3,4,6
4.0 x 450	150	200	7.4	125	0.69	20.3	2.00	90	22	1,2,3,4,6
5.0 x 450	190	275	10.6	115	0.69	14.0	3.00	85	23	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)