

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

Prepared by Helene Rasmuson	Qualified by Tero Borg	Approved by J-P Ernoult	Reg no EN007031	Cancelling EN006697	Reg date 2016-02-09	Page 1 (2)
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REASON FOR ISSUE

Typical mechanical values added.

GENERAL

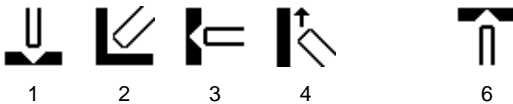
General purpose basic DC+ electrode for mild and low alloy steels. Very good running characteristics give high quality welds with good impact values.

Polarity: DC+

Alloy Type: Carbon manganese

Coating Type: Lime Basic

WELDING POSITIONS



CLASSIFICATIONS Electrode

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

APPROVALS

ABS 3Y H10
BV 3Y H10
CE EN 13479
DNV 4Y H10
GL 3Y H10
LR 3Y H15
NAKS/HAKC 3.2 - 4.0 mm
RS 4Y40 H10
Seproz UNA 272581
VdTÜV

APPROVAL COMMENT

NAKS/HAKC: Valid for lot numbers starting with SB

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max
C	0.03	0.09
Si	0.35	0.75
Mn	0.70	1.25
P		0.030
S		0.030
Cr		0.20
Ni		0.30
Mo		0.20
V		0.05
Nb		0.05
Cu		0.30

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MECHANICAL PROPERTIES OF WELD METAL

Properties	ISO			AWS
	As welded			As welded
	Min	Max	Typ	Min
Rp0.2 (MPa)				400
ReL (MPa)	420		440	
Rm (MPa)	510	640	530	490
A4 (%)				22
A5 (%)	22		30	
Charpy V at -40°C (J)			60	
Charpy V at -45°C (J)	47			27
	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	45	75	1.4	123	0.56	125.0	0.60	46	26	1,2,3,4,6
2.5 x 350	70	105	2.4	125	0.63	65.8	0.90	57	25	1,2,3,4,6
3.2 x 450	100	135	4.8	123	0.67	30.9	1.30	87	21	1,2,3,4,6
4.0 x 450	140	185	7.1	122	0.69	20.5	1.90	90	22	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)