



Product Data Sheet

OK 76.16

E 'Manual metal-arc welding'
ESAB AB Sweden

Prepared by P-O Oskarsson	Qualified by Christos Skodras	Approved by Karin Ivarsson	Reg no EN005597	Cancelling EN005179	Reg date 2011-11-04	Page 1 (2)
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REASON FOR ISSUE

Updated CE approval

GENERAL

Basic DC low hydrogen electrode for welding creep resisting steels of the type 1.25 % Cr 0.5 % Mo.

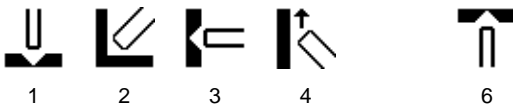
Polarity: DC+(-)

Alloy Type: 1.25 % Cr - 0.5 % Mo

Coating Type: Lime Basic, Moisture resistant

Diff Hydrogen: <4.0 ml/100g

WELDING POSITIONS



CLASSIFICATIONS Electrode

SFA/AWS A5.5 E8018-B2-H4R
EN ISO 3580-A E CrMo1B 4 2 H5

APPROVALS

CE EN 13479
VdTÜV 10731

APPROVALS (SPECIFIC)

Seproz UNA 272580

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max
C	0.05	0.10
Si	0.20	0.50
Mn	0.40	0.90
P		0.010
S		0.012
Cr	1.10	1.40
Ni		0.1
Mo	0.45	0.65
V		0.03
Nb		0.009
Cu		0.1
Sn		0.010
As		0.007
Sb		0.005



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MECHANICAL PROPERTIES OF WELD METAL

Properties	ISO	AWS	
	PWHT 690°C 1h Min	Min	Typ
Rp0.2 (MPa)		460	550
ReL	355		
Rm (MPa)	510	550	620
A4 (%)		19	22
A5 (%)	20		
Charpy V at 20°C (J)	47		
Charpy V at -20°C (J)			70

ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	η	N	B	H	T	U	Welding Positions
\varnothing x Length	Min	Max								
2.5 x 350	70	110	2.3	113	0.60	74	0.65	75	22.7	1,2,3,4,6
3.2 x 350	95	150	3.5	108	0.59	48	1.07	71	22.5	1,2,3,4,6
4.0 x 350	130	190	5.2	113	0.89	30	1.55	78	22.1	1,2,3,4,6
5.0 x 450	150	260	10.6	115	0.66	14	2.49	102	23.6	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

Hot tensile test, after PWHT 670°C / 5.5 h:
 +400°C, Rp0.2 = 475 MPa , Rm = 565 MPa

Hot tensile test, after PWHT 630°C / 12 h + 670°C / 11h:
 +400°C, Rp0.2 = 466 MPa , Rm = 558 MPa

Step cooling test result:
 TEP = Tr 54 + 3 (Tr54SC-Tr54) =<10°

X-factor according to:
 (10P + 5Sb + 4Sn + As) x10000 /100 = < 15 ppm