



# Product Data Sheet

# OK 76.16

ESAB AB Sweden

Signed by P-O Oskarsson	Approved by Rune Pedersen/Barbro Karlström	Reg no EN002439	Cancelling EN002009	Reg date 2004-09-29	Page 1 (2)
----------------------------	---	--------------------	------------------------	------------------------	---------------

## REASON FOR ISSUE

EN 1599 Classification added

## 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

EN 1599                      E Cr Mo1 B 42 H5  
SFA/AWS A5.5                E8018-B2-H4R

## APPROVALS

Not  
applicable

## CHEMICAL COMPOSITION

	All Weld Metal (%)	
	Min	Max
C	0.05	0.10
Si	0.20	0.50
Mn	0.30	0.90
P		0.010
S		0.012
Cr	1.25	1.45
Ni		0.1
Mo	0.50	0.65
V		0.03
Cu		0.1
Sn		0.010
As		0.007
Sb		0.005
X		15

## MECHANICAL PROPERTIES OF WELD METAL

Properties	All Weld Metal	
	Min	Typ
	AWS	
	Stress relieved 690°C 1h	
Rp0.2 (MPa)	460	550
Rm (MPa)	550	620
A4-A5 (%)	19	22
Charpy V at -20°C (J)		70



# Product Data Sheet

# OK 76.16

ESAB AB Sweden

Signed by P-O Oskarsson	Approved by Rune Pedersen/Barbro Karlström	Reg no EN002439	Cancelling EN002009	Reg date 2004-09-29	Page 2 (2)
----------------------------	---	--------------------	------------------------	------------------------	---------------

## ECONOMICS & CURRENT DATA

Dimension (mm) Ø x Length	Current (A)		W	η	N	B	H	T	U
	Min	Max							
2.5 x 350	70	110	2.3	113	0.60	74	0.65	75	22.7
3.2 x 350	95	150	3.5	108	0.59	48	1.07	71	22.5
4.0 x 350	130	190	5.2	113	0.89	30	1.55	78	22.1

**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: Hot tensile test, after PWHT 630°C / 12 h + 670°C / 11h:  
+400°C, Rp0.2 = 475 MPa , Rm = 565 MPa +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

---