



Product Data Sheet

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

OK Femax 38.65

Prepared by P-O Oskarsson	Qualified by Tero Borg	Approved by J-P Ernoult	Reg no EN007263	Cancelling EN007030	Reg date 2016-05-20	Page 1 (2)
------------------------------	---------------------------	----------------------------	--------------------	------------------------	------------------------	---------------

REASON FOR ISSUE

DNV-GL approval.

GENERAL

High-recovery zircon-basic electrode, especially developed for making butt welds and fillet welds in the flat position in carbon steels, carbon manganese steels and fine-grained manganese steels with elevated yield strength. Good slag removal.

Min AC OCV: 65

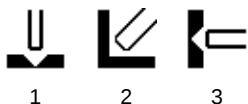
Polarity: AC, DC+

Alloy Type: Carbon Manganese

Coating Type: Zircon Basic

Diff Hydrogen: <5.0 ml/100g

WELDING POSITIONS



CLASSIFICATIONS Electrode

SFA/AWS A5.1 E7028
EN ISO 2560-A E 42 4 B 73 H5

APPROVALS

ABS	E7028
ABS	3Y H5
BV	3Y H5
CE	EN 13479
DB	10.039.15
DNV-GL	3Y H5
LR	3Ym H5
PRS	3Y H5
VdTÜV	00635

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max
C	0.07	0.10
Si	0.25	0.65
Mn	0.85	1.25
P		0.030
S		0.030
Cr		0.1
Ni		0.1
Mo		0.06
V		0.03
Nb		0.02
Cu		0.10
Al		0.03
Sn		0.03
Ti		0.03
Pb		0.02
As		0.03



Product Data Sheet

OK Femax 38.65

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 EN007263	Cancelling EN007030	Reg date 2016-05-20	Page 2 (2)
------------------------------	---------------------------	----------------------------	--------------------	------------------------	------------------------	---------------

MECHANICAL PROPERTIES OF WELD METAL

Properties	ISO			AWS
	As welded Min	Max	Typ	As welded Min
Rp0.2 (MPa)				400
ReL (MPa)	420		440	
Rm (MPa)	510	640	550	490
A4 (%)				22
A5 (%)	22		28	
Charpy V at -20°C (J)			100	27
Charpy V at -40°C (J)	47		85	
	Comments: EN standard requires 500 MPa and A5 min 20%.			Comments:

ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	η	N	B	H	T	U	Welding Positions
Ø x Length	Min	Max								
4.0 x 450	170	240	9.6	165	0.68	14.4	3.70	70	36	1,2,3
5.0 x 450	225	355	15.3	165	0.69	9.6	5.70	72	40	1,2
6.0 x 450	300	430	22.0	165	0.68	6.6	7.20	80	40	1,2

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

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