



Product Data Sheet

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

OK Femax 38.95

Prepared by P-O Oskarsson	Qualified by Tero Borg	Approved by J-P Ernoult	Reg no EN007232	Cancelling EN006814	Reg date 2016-05-11	Page 1 (2)
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REASON FOR ISSUE

DNV-GL Approval.

GENERAL

High-recovery, iron powder electrode, giving approximately 240% recovery. OK 38.95 gives a welding speed comparable to submerged-arc welding: up to 240g of weld metal /minute with 6.0mm electrode. Primarily designed for welding butt and fillet joints in the flat position where it gives a smooth transition to the base material. For welding of carbon steels, carbon manganese steels and fine-grained carbon manganese steels with elevated yield strength.

Min AC OCV: 65

Polarity: AC, DC+

Alloy Type: Carbon - Manganese

Coating Type: Zircon Basic

Diff Hydrogen: <8.0 ml/100g

WELDING POSITIONS



CLASSIFICATIONS Electrode

SFA/AWS A5.1 E7028
EN ISO 2560-A E 38 4 B 73 H10

APPROVALS

ABS 3Y H10
BV 3Y H10
DNV-GL 3 YH10
LR 3Ym H10

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max
C		0.10
Si	0.25	0.65
Mn	0.90	1.30
P		0.03
S		0.03

MECHANICAL PROPERTIES OF WELD METAL

Properties	ISO		AWS	
	As welded Min	Max	As welded Min	
Rp0.2 (MPa)			400	
ReL (MPa)	380			
Rm (MPa)	470	600	490	
A4 (%)			22	
A5 (%)	20			
Charpy V at -20°C (J)			27	
Charpy V at -40°C (J)	47			



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ECONOMICS & CURRENT DATA

Dimension (mm) Ø x Length	Current (A)		W	η	N	B	H	T	U	Welding Positions
	Min	Max								
4.0 x 450	170	240	10.1	170	0.67	14.9	3.60	67	35	1,2
5.0 x 450	330	400	21.2	250	0.70	6.6	9.00	63	40	1,2
6.0 x 450	400	520	33.3	270	0.71	4.2	13.30	65	50	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)