Product Data Sheet

OK 53.16 SPEZIAL

E 'Manual metal-arc welding'
ESAB-MÓR Kft Hungary

Prepared by	Qualified by	Approved by	Reg no	Cancelling	Reg date	Page
P-O Oskarsson	Tero Borg	J-P Ernoult	EN007036	EN005181	2016-02-10	1 (2)

REASON FOR ISSUE

Typical mechanical values added.

GENERAL

OK 53.16 is a double coated electrode combining the running characteristics of a rutile with the mechanical properties of a basic electrode. The double coating enables it to be used with small transfomers with low OCV. OK 53.16 welds on both AC and DC.

Min AC OCV: 50 V
Polarity: AC, DC+-

Alloy Type: CMn
Coating Type: Basic Special
Diff Hydrogen: <10.0 ml/100g

WELDING POSITIONS

1 2 3 4 6 7

CLASSIFICATIONS Electrode

SFA/AWS A5.1	E7016
EN ISO 2560-A	E 38 2B 32 H10

APPROVALS

ABS	3H10, 3Y
BV	3,3Y H10
CE	EN 13479
DB	10.039.29
DNV	3YH10
GL	3YH10
LR	3YH10
VdTÜV	02762

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max
C		0.10
Si	0.30	0.70
Mn	0.70	1.20
P		0.030
S		0.030
Cr		0.19
Ni		0.29
Mo		0.19
V		0.049
Nb		0.049
Cu		0.29

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MECHANICAL PROPERTIES OF WELD METAL

	ISO			AWS
	As welded			As welded
Properties	**Min**	**Max**	**Typ**	**Min**
Rp0.2 (MPa)				400
ReL (MPa)	380		450	
Rm (MPa)	510	600	530	490
A4 (%)				22
A5 (%)	22		28	
Charpy V at -20°C (J)	47		90	
Charpy V at -30°C (J)				27
	Comments: EN standard requires Rm min 470 MPa and A5 min 20%.			Comments:

ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	η	N	B	H	T	U	Welding
Ø x Length	Min	Max								Positions
2.5 x 350	50	90	2,1	102	0,58	83,3	0.73	59	26,8	1,2,3,4,6,7
3.2 x 350	90	150	3,4	101	0,54	53,6	1,2	56	31,2	1,2,3,4,6,7
3.2 x 450	90	150	4.5	103	0,57	39,5	1,27	72	30,3	1,2,3,4,6,7
4.0 x 450	120	190	6.9	105	0.59	24	1.65	90	28	1,2,3,4,6,7
5.0 x 450	160	230	10.5	106	0.61	15.5	2.14	109	28	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)