



Product Data Sheet

OK 53.70

E 'Manual metal-arc welding'
ESAB AB Sweden

Prepared by P-O Oskarsson	Qualified by Tero Borg	Approved by J-P Ernoult	Reg no EN007144	Cancelling EN006695	Reg date 2016-03-04	Page 1 (2)
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REASON FOR ISSUE

Typical mechanical values amended.

GENERAL

A low hydrogen AC/DC electrode for one side welding of pipes and general structures. The root penetration is good, leaving a flat bead with easy removable slag. The stable arc and the well balanced slag system make the electrode easy to weld in all positions. Suitable for welding of transmission pipelines made from pipe steels up to API 5LX56.

It is also suitable for welding the root in higher strength pipes, API 5LX60, 5LX65, 5LX70.

Min AC OCV: 60

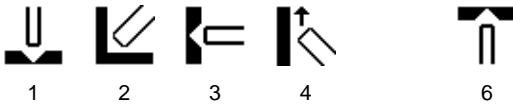
Polarity: AC, DC +(-)

Alloy Type: Carbon Manganese

Coating Type: Lime Basic

Diff Hydrogen: <5.0 ml/100g

WELDING POSITIONS



CLASSIFICATIONS Electrode

SFA/AWS A5.1	E7016-1
EN ISO 2560-A	E42 5 B 12 H5
GOST 9467-75	E50A

APPROVALS

ABS	E7016-H4
ABS	3Y H5
CE	EN 13479
DNV	3Y H5
LR	3Ym H5
RS	4Y H5

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max
C	0.04	0.08
Si	0.30	0.60
Mn	0.95	1.35
P		0.015
S		0.015
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

Properties	ISO			AWS
	As welded Min	Max	Typ	As welded Min
Rp0.2 (MPa)				400
ReL (MPa)	420		450	
Rm (MPa)	500	640	540	490
A4 (%)				22
A5 (%)	20		32	
Charpy V at -45°C (J)			135	27
Charpy V at -50°C (J)	47		130	

ECONOMICS & CURRENT DATA

Dimension (mm) Ø x Length	Current (A)		W	η	N	B	H	T	U	Welding Positions
	Min	Max								
2.5 x 350	60	85	1.8	95	0.63	87.7	0.70	57	26	1,2,3,4,6
3.2 x 350	80	130	3.1	95	0.59	54.5	1.10	61	24	1,2,3,4,6
4.0 x 450	115	190	6.4	104	0.63	24.6	1.70	86	24	1,2,3,4,6
5.0 x 450	150	250	10.0	108	0.66	15	2.26	104	24	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)