



Product Data Sheet

OK 73.79

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 EN007227	Cancelling EN007047	Reg date 2016-05-11	Page 1 (2)
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REASON FOR ISSUE

DNV-GL approval.

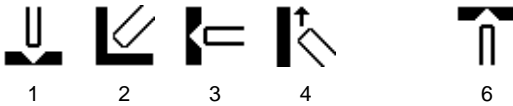
GENERAL

Nickel alloyed basic AC/DC low hydrogen electrode for MMA welding of 3.5 % Ni steels with impact requirements down to -101 °C, e.g. in LPG tanks for ethane, chemical plants etc.

Min AC OCV: 65
Polarity: AC, DC+-

Alloy Type: 3.5% Ni
Coating Type: Lime Basic
Diff Hydrogen: < 5.0 ml/100g

WELDING POSITIONS



CLASSIFICATIONS Electrode

SFA/AWS A5.5	E8016-C2
EN ISO 2560-A	E 46 6 3 Ni B 12 H5

APPROVALS

DNV-GL	5 Y46H5
RS	5Y46 H5

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max
C	0.02	0.10
Si	0.10	0.50
Mn	0.35	0.85
P		0.020
S		0.020
Cr		0.1
Ni	3.00	3.60
Mo		0.05
V		0.03
Nb		0.02
Cu		0.1
Al		0.03
Sn		0.01
Ti		0.03
Pb		0.02
As		0.03

MECHANICAL PROPERTIES OF WELD METAL

Properties	ISO			AWS
	As welded	Min	Max	Min
Rp0.2 (MPa)	460			460
Rm (MPa)	530	680		550
A4 (%)				19
A5 (%)	20			
Charpy V at -60°C (J)	47			
Charpy V at -75°C (J)				27



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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								
2.5 x 350	70	110	2.2	100	0.60	76.0	0.80	60	25	1,2,3,4,6
3.2 x 450	80	150	4.3	100	0.60	37.0	1.50	77	25	1,2,3,4,6
4.0 x 450	90	190	6.0	100	0.63	26.0	1.80	88	27	1,2,3,4,6
5.0 x 450	110	240	9.6	100	0.60	15.0	2.10	100	29	1,2,3

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

Core wire:

P 0.015 %

S 0.015 %

N 100 ppm

All weld metal, target level:

P 0.015 %

S 0.015 %
