

FILARC Product Data Sheet

FILARC 76S

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 EN007230	Cancelling EN007069	Reg date 2016-05-11	Page 1 (2)
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REASON FOR ISSUE

DNV-GL approval.

GENERAL

CTOD tested, all-position basic AC/DC electrode for offshore fabrication. Alloyed with max 1% nickel. Good CVN toughness down to -60° C. CTOD tested in the AW and SR conditions. Use short arc. Weave slowly when permitted. DC+. Use DC- for root pass.

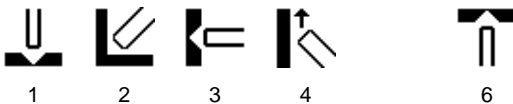
Min AC OCV: 65 V

Polarity: AC, DC+-

Coating Type: Basic

Diff Hydrogen: < 5.0 ml/100g

WELDING POSITIONS



CLASSIFICATIONS Electrode

SFA/AWS A5.5 E7018-G
EN ISO 2560-A E 46 6 Mn1Ni B 32 H5

APPROVALS

ABS 3Y H5
BV 3Y H5
CE EN 13479
DNV-GL 3 YH5
LR 5Y42 H5

APPROVALS (SPECIFIC)

Seproz UNA 272581

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max
C	0.035	0.075
Si	0.20	0.50
Mn	1.40	1.80
P		0.020
S		0.015
Cr		0.10
Ni	0.60	0.99
Mo		0.01
V		0.02
Nb		0.01
Cu		0.05
Al		0.008
Sn		0.01
Ti		0.03
Pb		0.01
As		0.02

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MECHANICAL PROPERTIES OF WELD METAL

Properties	ISO			AWS
	As welded Min	Max	Typ	As welded Min
Rp0.2 (MPa)	460		550	390
Rm (MPa)	530	680	630	490
A4 (%)				22
A5 (%)	20		28	
Charpy V at -40°C (J)			110	
Charpy V at -60°C (J)	47		75	

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	55	85	1.83	100	0.65	87	0.7	59	24	1,2,3,4,6
3.0 x 350	100	125	2.9	116	0.63	55	1.05	63	21	1,2,3,4,6
3.2 x 350	80	140	3.3	97	0.57	54	1.12	60	23.8	1,2,3,4,6
3.5 x 350	125	175	4	110	0.61	41	1.4	63	21.6	1,2,3,4,6
4.0 x 350	120	180	5.2	113	0.63	31	1.51	78	22	1,2,3,4,6
4.0 x 450	120	170	6.8	107	0.608	24	1.4	109	22.2	1,2,3,4,6
5.0 x 450	180	270	10.7	108.4	0.62	15	2.22	106	24.3	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)