Product Data Sheet

E 'Manual metal-arc welding'

OK 92.55

NiCrMo-6

Prepared by	Qualified by	Approved by	Reg no	Cancelling	Reg date	Page
A-C Thorsson	Tero Borg	Tapio Huhtala	EN007280	EN007063	2016-06-30	1 (2)

REASON FOR ISSUE

Approvals revised. DNV and GL removed. DNV-GL added.

GENERAL

An all position basic coated electrode depositing a nickel chromium based alloy with additions of molybdenum, tungsten and niobium. The electrode is especially designed for welding of 9% nickel steels for cryogenic applications down to -196 °C.

Min AC OCV: 55

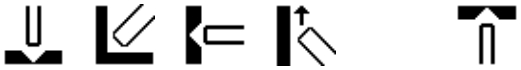
Polarity: AC, DC+-

Alloy Type: Ni-based CrMoNb

Coating Type: Basic

Ferrite Content: FN 0

WELDING POSITIONS



1 2 3 4 6

CLASSIFICATIONS Electrode

SFA/AWS A5.11	ENiCrMo-6
EN ISO 14172	E Ni 6620 (NiCr14Mo7Fe)

APPROVALS

ABS	ENiCrMo-6	
BV	N50 and 9Ni*	(2.5-4.0 mm)
CE	EN 13479	
DNV-GL	VL 1.5Ni up to VL 9Ni	
LR	9Ni	

APPROVAL COMMENT

*) See certificates for details.

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max
C		0.080
Si	0.2	0.6
Mn	2.6	3.4
P		0.020
S		0.010
Cr	12.0	14.0
Ni	65.0	75.0
Mo	5.5	7.0
W	1.2	1.8
Nb	1.2	1.8
Cu		0.30
Fe		8.0
Nb+Ta	1.2	1.8

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MECHANICAL PROPERTIES OF WELD METAL

	ISO		AWS
	As welded		As welded
Properties	**Min**	**Typ**	**Min**
Rp0.2 (MPa)	430	445	430
Rm (MPa)	690	727	690
A4 (%)			35
A5 (%)	32	40	
Charpy V at -196°C (J)	70	91	70

Comments:

Lateral expansion at -196 °C > 1.0 mm (> 40 mils).
Elongation A4 min. 35% is achieved in 1G-position. In 3G-position A4 min. 30%.
Impact toughness: the diameter 5.0mm meet min 55J at -196°C.

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	65	115	2.6	136	0.70	55	1.1	70	23	1,2,3,4,6
3.2 x 350	70	150	4.4	135	0.66	34	1.5	68	22	1,2,3,4,6
4.0 x 350	120	200	6.6	136	0.67	23	1.9	82	22	1,2,3,4
5.0 x 350	150	240	10.3	136	0.68	14	2.8	91	23	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

Redrying: 300 °C, 1 - 2h.