



Product Data Sheet

E 'Manual metal-arc welding'

OK NiCrMo-13

Former OK 92.59

Prepared by A-C Thorsson	Qualified by P-O Oskarsson	Approved by Tapio Huhtala	Reg no EN008725	Cancelling EN007492	Reg date 2019-08-08	Page 1 (2)
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REASON FOR ISSUE

Maximum Mn content level revised.

GENERAL

OK NiCrMo-13 is suitable for welding Ni base materials such as Alloy 59, Hasteloy C-276, Inconel 625 and Incoloy 825. It can also be used for welding superaustenitic steels type AISI/ASTM S31254 and S32654. The weld metal provides very good resistance against pitting- and chloride ion stress corrosion cracking.

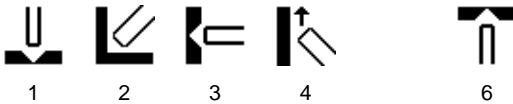
Polarity: DC+

Alloy Type: Ni-based CrMo

Coating Type: Basic

Ferrite Content: FN 0

WELDING POSITIONS



CLASSIFICATIONS Electrode

SFA/AWS A5.11 ENiCrMo-13
EN ISO 14172 E Ni 6059 (NiCr23Mo16)

APPROVALS

Not applicable

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max
C		0.020
Si		0.20
Mn		0.40
P		0.010
S		0.010
Cr	22.00	24.00
Ni	60.0	64.0
Mo	15.0	16.5
Fe		1.0

MECHANICAL PROPERTIES OF WELD METAL

Properties	ISO		AWS
	Min	Typ	As welded Min
Rp0.2 (MPa)	350	430	
Rm (MPa)	690	770	690
A4 (%)			25
A5 (%)	22	40	
Z (%)		50	
Charpy V at -60°C (J)		70	
Charpy V at -196°C (J)		60	

Comments:

Typical lateral expansion at -196 °C: 1.0 mm.



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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 300	50	70	1.8	101	0.6	90	0.8	50	25	1,2,3,4,6
3.2 x 350	60	90	3.4	109	0.62	47	1.2	63	25	1,2,3,4,6
4.0 x 350	80	120	5.1	100	0.62	31	1.4	81	27	1,2,3,4,6

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 200°C, 2h.

Hardness data:

As welded condition, transverse cross section of an ISO-joint, measurements done along a vertical centre line (9 indents) and a horizontal line at top layer (9 indents), 2 samples tested: 191 - 257 HV10, average 229 HV10.
