Product Data Sheet

E 'Manual metal-arc welding'

OK NiCrMo-13

Former OK 92.59

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

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

1 2 3 4 6

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

	ISO		AWS
	As welded		As welded
Properties	**Min**	**Typ**	**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.

Product Data Sheet

E 'Manual metal-arc welding'

OK NiCrMo-13

Former OK 92.59

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

ECONOMICS & CURRENT DATA

Dimension (mm)	Current (A)		W	η	N	B	H	T	U	Welding
Ø x Length	Min	Max								Positions
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.