Product Data Sheet

E 'Manual metal-arc welding'

OK 94.35

Prepared by	Qualified by	Approved by	Reg no	Cancelling	Reg date	Page
A-C Thorsson	P-O Oskarsson	Tapio Huhtala	EN007406	EN007389	2016-11-08	1 (2)

REASON FOR ISSUE

Hardness data added under Other Data.

GENERAL

OK 94.35 is a copper-nickel type welding electrode used for chemical process equipment, desalination plants and offshore application. It is suitable for joining and cladding of matching as well as dissimilar alloys.

Polarity: DC+

Alloy Type: Copper Nickel

Coating Type: Basic

WELDING POSITIONS

1 2 3 4 6

CLASSIFICATIONS Electrode

SFA/AWS A5.6	ECuNi
EN ISO 17777	E Cu 7158 (CuNi30Mn2FeTi)

APPROVALS

Not applicable

CHEMICAL COMPOSITION

All Weld Metal (%)

	Min	Max
C		0.05
Si		0.50
Mn	1.0	2.0
P		0.020
S		0.010
Ni	29.0	32.0
Cu	65	69
Ti		0.50
Pb		0.02
Fe	0.40	0.75
Others tot		0.50

MECHANICAL PROPERTIES OF WELD METAL

	AWS	
	As welded	
Properties	**Min**	**Typ**
Rm (MPa)	350	400
A4 (%)	20	30

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ECONOMICS & CURRENT DATA

Dimension (mm) Ø x Length	Current (A) Min	Current (A) Max	W	η	N	B	H	T	U	Welding Positions
2.5 x 300	55	70	1.7	100	0.64	93	3.9	49	22	1,2,3,4,6
3.2 x 350	70	120	3.1	103	0.66	48	4.4	50	23	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 250°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 (6 - 8 indents), 2 samples tested: 115 - 156 HV10, average 135 HV10.