Elerep® NiCu 70/30

Repair electrode

Classification

ISO 14172 :E Ni 4060 (NiCu30Mn3Ti)
AWS A5.11 : ENiCu-7

General Description

Electrode for welding of corrosion resistant NiCu-alloys, and for welding of Cu-alloys with Ni and Ni-alloys, and also for anti corrosion deposit on mild and low alloyed construction steel. Deposit metal resistant against cracks, it is ductile metal and correspond to the most strict requirement for corrosion resistance in sea water, acid and alkaline. Electrode applicable for welding of corrosion resistant steel like "Monel" on production of petrol and ammonium sulfate, and also in energetic objects.

Welding positions

ISO/ASME	PA/1G	PB/2F	PC/2G	PF/3G up	PE/4G	PF/5G up

Current type

AC/DC electr. -

Chemical composition (w%), typical, all weld metal

C	Si	Mn	Cr	Ni	Ti	Fe	Cu
0.10	0,3	2.1	23,5	66,0	0,2	1,6	29

Mechanical properties,all weld metal

	Shielding gas	Condition	Yield Strength 0,2 % (N/mm^2)	Tensile Strength (N/mm^2)	Elongation (%)	Impact (ISO), J +20°C
Typical values after welding		AW	250	450	25	80

Packaging, available sizes and identification

	Diameter (mm)	2,5	3.2	4.0
	Length (mm)	300	350	350
Unit:	Pieces / unit (nominal)	130	140	100
Box	Net weight (kg)	2.6	4.8	4.6

Identification Imprint: Elerep®NiCu 70/30

Elerep®NiCu 70/30: rev.EN 20

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Materials to be welded

NiCu30Fe (2.4360), NiCu30Al (2.4375)
UNS NO4400, NO5500
CuNi-alloys and alloys Alloy 400, ASTM B 127, B 165

Calculation data

Sizes Diam.x length (mm)	Range of current (A)	Type of current	Arc time	Energy	Dep. rate	Weight/ 1000 pcs. (kg)	Electrodes/ kg weldmetal (pcs)	kg Electrodes/ kg weldmetal (1/N)
			- per electrode at max. current -					
			(s)*	E (kJ)	H (kg/h)			
2.5x300	55-70	AC	47	109	0,9	17,5	90	1,5
3.2x350	75-110	AC	79	145	1,0	29,5	54	1,7
4.0x350	90-130	AC	120	290	1,3	42,4	37	1,5

*stub end = 35 mm

Welding parameters, optimum fill passes

Welding position Diameter (mm)	PA/1G Current (A)	PB/2F	PC/2G	PF/3G up	PE/4G
2.5	60	55	55	55	55
3.2	90	90	85	95	85
4.0	120	115	110	110	100

Application advice

Electrodes after removal from packing redry 2-4h at 350 ± 25°C