Selectarc CuNi30

Copper Nickel
Basic coated Electrode

Classification

AWS A5.6 : ECuNi
ISO 17777 : E Cu 7158 (CuNi30Mn2FeTi)
DIN 1733 : EL-CuNi30Mn

Description & Applications

Basic coated copper nickel electrode for joining CuNi-alloys with up to 30%Ni and for surfacing the final layer on CuNi70/30 clad steel. The weld metal is resistant against seawater. The electrode can be welded in all positions except vertical down, the slag is easy to remove and the weld beads are regular.

Main applications: In ship building, oil refineries, and desalination plants.

Base materials

UNS	Alloy	DIN	Material N°
C70600	CuNi90/10	CuNi10Fe1Mn	2.0872
C71500	CuNi70/30	CuNi30Mn1Fe	2.0882

Typical Weld Metal Composition (%)

C	Si	Mn	Ni	Fe	Ti	Pb	Cu
<0.03	0.2	1.2	30.0	0.5	0.2	<0.02	Rem.

All Weld Metal Mechanical Properties

$R_{p0,2}$ (MPa)	R_m (MPa)	A_5 (%)
>240	>380	>30

Welding Current & Instructions

Electrode	ØxL (mm)	2,5x300	3,2x350	4,0x350
Current	(A)	55-75	80-100	110-130

Redrying 2 h at 200-250°C. Joints to weld must be clean, exempt from grease, cracks. Guide electrodes with a slight declination, weld with a short arc and prevent a high heat input by applying the stringer bead technique (weaving max. 2 times core wire diameter). Interpass temperature <150°C. When applied on steel, use Selectarc Ni190 as intermediate layer.

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