CARBO WELD
SCHWEISSMATERIALIEN GMBH

CARBOWELD 190

International standards

Material No.	2.4366
DIN 1736	EL-NiCu 30 Mn
AWS A 5.11	ENiCu-7

Approvals ---

Typical applications and characteristics

Basic-coated nickel base electrode with a nickel-copper alloyed core wire. Designated for butt welding and surfacing of nickel-copper, copper-nickel and copper-nickel plated steels.
Also recommended for dissimilar joining like steel / nickel-copper or steel/copper/copper/nickel.
CARBOWELD 190 is an alloy with high strength and excellent resistance to a range of media including sea water, dilute hydrofluoric and sulphuric acids, and alkalis.
Used in marine and offshore engineering, salt production, feed water heater tubing and chemical and hydrocarbon processing.

Operating temperature - 196° C up to 425° C

Base materials

2.0872 CuNi10Fe1Mn (CuNi90/10)
2.0882 CuNi30Mn1Fe (CuNi70/30)
2.4360 S-NiCu 30 Fe (Alloy 400)
2.4375 NiCu 30 Al (K-500)
2.4361 LC-NiCu 30 Fe
2.4365 G-NiCu 30Nb

Mechanical properties of all-weld metal

(typical values)

Tensile strength R_m N/mm²	Yield strength $R_{p0,2}$ N/mm²	Elongation A_5 %	Impact strength ISO – V J at -196 ° C
500	300	>35	50

Weld metal analysis (typical, wt. %)

C	Si	Mn	Cu	Ni	Fe	Ti	Al
< 0,03	0,4	2	31	Bal.	<2,5	<0,5	<0,2

Current = +

Welding positions PA, PB, PC, PD, PE, PF

Rebaking 1 h, 300 °C + / - 10 °C (if required)

Dia./Length	Amperage (A)	Pcs./ packet	Pcs./ carton	kg / 1000	kg / packet	kg / carton
2,5 x 300	50 - 90	217	870	18,4	4,0	16,0
3,2 x 350	70 - 120	138	551	36,3	5,0	20,0
4,0 x 350	100 - 160	91	364	55,0	5,0	20,0
5,0 x 450	140 - 200	54	217	110,4	6,0	24,0

Rev. 000