ERCuNi

ERCuNi is copper based type material designed for welding of copper-nickel alloys containing 10-30% of nickel.

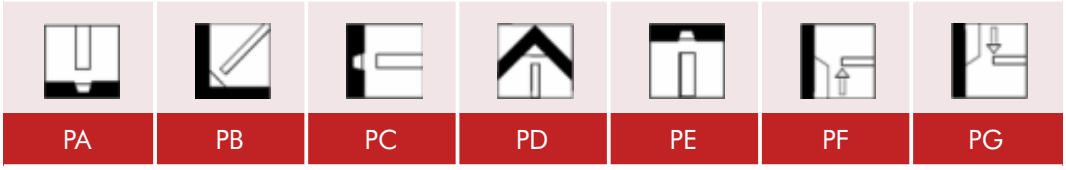
This alloy can be used for dissimilar welding applications welding various copper-nickel alloys to nickel alloys and various other copper-nickel alloys. ERCuNi is occasionally used for overlay on carbon steel, but can only be used after applying a layer of ERNi-1 first.

Due to excellent resistance to corrosion in sea water it is widly used for different marine and desalination applications.

1. Shielding gases (acc. EN ISO 14175)

GMAW/GTAW	I1	Inert gas Ar (100%)
	I2	Inert gas He (100%)
	I3	Inert gas Ar + 0÷95% He

2. Welding positions



PA	PB	PC	PD	PE	PF	PG

3. Chemical composition %

Cu	Si	Fe	P	Mn	Ni	Pb	Ti	Other
rest	≤0.25	0.40-0.75	≤0.02	≤1.00	29.00-32.00	≤0.02	0.20-0.50	≤0.50

4. Mechanical properties, all weld metal

Heat treatment	Yield Strength, $R_{p0.2}$ (MPa)	Tensile Strength, R_m (MPa)	Elongation, A (%)	Impact Energy ISO-V(J)	
				+20°C	-196°C
AW	≥120	≥345	≥25	≥90	-

5. Available size and packaging

Process	Diameter, mm	Box 5-10 kg	D100 1 kg	D200 5 kg	D300 15 kg	BS300 15 kg	K300 15 kg	Coil 25-40 kg	Drum 100-300 kg
GTAW	1.00 - 5.00	x	-	-	-	-	-	-	-
GMAW	0.60 - 2.00	-	-	-	-	x	-	-	-

* Customer packing on request.

Note: All information enclosed in this datasheet is based on our best knowledge and is given as indicative. Other special requirements are subject to prior discussion and approval of Vojay. Please contact us for any additional information or request.