



CuNi12Zn24

Cupronickel Alloy

Standardization:
Cupronickel Alloy

ALLOY DESCRIPTION

A Cupronickel alloy created by combining copper and nickel in a homogeneous solid solution phase, offering exceptionally high erosion-corrosion resistance.

CHEMICAL COMPOSITION (% WEIGHT)

Fe (%)	Mn (%)	Ni (%)	Cu (%)	Pb (%)	Sn (%)
max 0.3	max 0.5	11 - 13	63 - 66	max 0.03	max 0.03

MECHANICAL PROPERTIES (MIN.)

Elongation (A)	45
Hardness (HB)	80 - 110

PHYSICAL PROPERTIES

Density	8.90 [kg/dm³]
Melting Temperature	~1100 - 1150 [°C]
Elk. Conductivity	~4 - 5 [MS/m]
Elasticity Modulus	140 [kN/mm²]

CASTING / MANUFACTURING METHODS

EK	Extrusion (Rod/Profile)
GS	sand casting
GM	Permanent mold casting
GZ	Centrifugal casting

AREAS OF APPLICATION

- Heat Exchanger Tubes
- Seawater Valves/Pumps
- Offshore Platform Equipment
- Desalination Plants
- Ship Condensers

MACHINABILITY & CHARACTERISTICS

Unmatched defense against seawater, acids, and biofouling. A key engineering material with long service lives in ship cooling pipes and offshore platforms.

The technical information specified in this document reflects the standard reference values of international EN and DIN norms. Deviations may be observed depending on final production conditions.

CORUM BRONZE

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