



CuNi18Zn19Pb1

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 0.7	17 - 19	59.5 - 62.5	0.5 - 1.5	max 0.2

MECHANICAL PROPERTIES (MIN.)

Elongation (A)

20

Hardness (HB)

130

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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