



CuNi10Fe1Mn

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 (%)	C (%)	Mn (%)	Ni (%)	P (%)	S (%)	Co (%)	Pb (%)	Zn (%)	Sn (%)
1 - 2	max 0.05	0.5 - 1	9 - 11	max 0.02	max 0.05	max 0.1	max 0.02	max 0.5	max 0.03

MECHANICAL PROPERTIES (MIN.)

Elongation (A) **30**
 Hardness (HB) **70 - 120**

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.