Alleima® Alloy 400
Tube and pipe, seamless
Datasheet

Alleima® Alloy 400 is a copper-nickel alloy with the following characteristics:

- High strength and toughness
- Good bendability
- Excellent corrosion resistance in many environments

Standards

- UNS: N04400
- W.Nr.: 2.4360

Product standards

- ASTM B163, ASTM B165-05

Chemical composition (nominal)

Chemical composition (nominal) %

C	Si	Mn	S	Ni
≤0.3	≤0.5	≤2	≤0.024	≥63

Others
Cu=30
Fe<2.5

Applications

Alleima® Alloy 400 is used in a wide variety of applications in the chemical, nuclear and oil and gas industries, including heat-exchangers, pumps and valves, reboiler tubes and control lines.

Forms of supply

Alleima® Alloy 400 tubing is supplied in the annealed condition in lengths of 6 m.

Mechanical properties

At 20°C (68°F)

Proof strength	Tensile strength	Elong.

Datasheet last updated 5/9/2025 6:38:16 AM (supersedes all previous editions)

$R_{p0.2}$ [1)]		R_m		A [2)]
MPa	**ksi**	**MPa**	**ksi**	**%**
≥195	≥28	≥480	≥70	≥40

1 MPa = N/mm^2
1) $R_{p0.2}$ and $R_{p1.0}$ correspond to 0.2% offset and 1.0% offset yield strength, respectively.
2) Based on $L_0 = 5.65 \sqrt{S_0}$ where L_0 is the original gauge length and S_0 the original cross-section area.

Physical properties

Density

8.83 g/cm^3, 0.32 lb/in^3

Thermal conductivity

21.8 W.m -1.°K-1

Specific heat capacity

427 J.kg-1.°K-1

Thermal expansion

13.9 mm/m/°C

Modulus of elasticity

173 GPa

Electrical Resistivity

5.47 µΩ/cm

Disclaimer:

Recommendations are for guidance only, and the suitability of a material for a specific application can be confirmed only when we know the actual service conditions. Continuous development may necessitate changes in technical data without notice. This datasheet is only valid for Alleima materials.

Datasheet last updated 5/9/2025 6:38:16 AM (supersedes all previous editions)