

## Technical datasheet

## Nical 30 / CuNi30FeMn

Copper-nickel alloys have very good resistance to marine corrosion by stress corrosion cracking, bio fouling corrosion and by erosion-corrosion and cavitation. They have high oxidation resistance and maintain moderate strength at elevated temperatures. Nical 30 is highly formable and is suitable for deep drawing. It can also be formed by cold working operations (bending, expanding etc). Machinability is 20% of free cutting brass and it is highly weldable and suitable for both hard and soft brazing.

### Available products

#### Product form

Sheet and strip  
Rod and wire

### Major specifications

ASTM B122  
Wr.N 2.0882  
CW354H

UNS C71500  
DIN 17664/2, EN1652

### Chemical composition (%)

Ni	Fe	Cu
30.0	0.7	Balance

### Physical properties

Density, g/cm <sup>3</sup>	8.85
Melting point, °C	1170
Modulus of elasticity, longitudinal, GPa	155
Coefficient of expansion 20-300°C (x10 <sup>-6</sup> /°C)	16.2
Thermal conductivity at 20°C, W/m.K	29
Electrical resistivity at 20°C, μΩ.cm	40

### Mechanical properties

Temper	Vickers Hardness	Tensile strength (MPa)	Yields Strength (MPa)	Elongation (%)
Annealed (OS25)	<115	<400	<140	>30
1/2 hard (H12)	110-150	400-550	>220	>8
4/4 hard (H14)	145-215	550-700	>240	>2

### Applications

Deep draw cans (aerospace relays)  
Desalination  
Electrical contacts  
Heat exchangers

All information is subject to change without notice. The properties correspond to the material in the heading. They may vary for other specifications. Please contact us for more details.