



SHREE EXTRUSIONS LIMITED



CuNi2.2 Resistance Wire

Copper-nickel alloy (CuNi alloy) with low resistivity for use at temperatures up to 300°C (570°F).

TYPICAL USES:

CuNi2.2 is typically used for low-temperature applications such as heating cables in electric blankets and pillows.

Sizes available: As per Customer specification

CHEMICAL COMPOSITION

	Ni %	Cu %
Nominal composition	2.2	Bal.

MECHANICAL PROPERTIES

Wire size	Yield strength	Tensile strength	Elongation
Ø	Rp0.2	Rm	A
Mm	MPa	Mpa	%
1.00	100	240	30

PHYSICAL PROPERTIES

Density g/cm ³	8.9
Electrical resistivity at 20°C Ω mm ² /m	0.05

TEMPERATURE FACTOR OF RESISTIVITY

Temperature °C	20	100	200	300
Ct	1.00	1.11	1.25	1.40

THERMAL CONDUCTIVITY

Temperature °C	20
W m ⁻¹ K ⁻¹	130

COEFFICIENT OF THERMAL EXPANSION

Temperature °C	Thermal Expansion x10 ⁻⁶ /K
20 - 100	16.5

SPECIFIC HEAT CAPACITY

Temperature °C	20
kJ kg ⁻¹ K ⁻¹	0.380
Melting point °C	1090
Max continuous operating temperature in air °C	300
Magnetic properties	The material is non-magnetic

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