

Introduction

CuNi10 is a copper-nickel alloy (CuNi alloy) with medium-low resistivity for low temperature resistances. It is suitably used at temperatures up to 400°C (750°F). CuNi10 is typically used for heating cables, fuses, resistors and various types of controllers.

Chemical & Physical Properties

Ni	Cu	Mn	Ti	Fe	Others
10.5	Bal.	1	0.4	1	<0.5

Applications

- Thermal overload relay
- In low-voltage circuit breaker
- Low-voltage electrical product

Characteristics

Alloy Nomenclature	CuNi10
Resistivity (200CμΩ.m)	0.15
Max.working Temperature (0C)	250
Tensile Strength (Mpa)	290
Melting point (0C)	1100
Density (g/cm3)	8.9
TCR x10-6/ 0C (20~600 0C)	<50
EMF vs Cu (μV/ 0C) (0~100 0C)	-25

Standard Dimensions

Wire	Diameter (mm)	Tolerance (mm)
	1.6, 2.0, 3.17	+ 0 / - 0.05

Other sizes (diameter and wire weight) can be manufactured accordingly to the requirements of customers.

Packaging

Spool	15kgs / spool (D300 spool)
Coil	20 - 400kgs / coil