



**OHMALLOY MATERIAL CO.,LTD**  
**SHANGHAI,CHINA**

OhmAlloy030 (Resistance heating wire and resistance wire)

Common Name:CuN23,NC30,Curpothal30

OhmAlloy030 is a copper-nickel alloy (Cu77Ni23 alloy) with low resistivity for use at temperatures up to 300°C.

OhmAlloy030 is typically used for applications such as heating cables, fuses, shunts, resistors and various types of controllers.

**Normal composition%**

Nickel	23
Copper	Bal
Manganese	0.5

**Typical Mechanical properties (1.0mm)**

Yield Strength	Tensile Strength	Elongation
Mpa	Mpa	%
170	350	25

**Typical Physical properties**

Density(g/cm)	8.9
Electrical resistivity at20 (Ωmm <sup>2</sup> /m)	0.30
Temperature factor of resistivity ( 20°C~600°C ) X10-5/°C	<16
Conductivity coefficient at 20°C (Wmk)	33
EMF vs Cu(μV/°C )(0~100°C )	-34

**Coefficient of thermal expansion**

Temperature	Thermal Expansion x10-6/K
20 °C- 400 °C	17.5

**Specific heat capacity**

Temperature	20°C
J/gK	20°C
Melting Point (°C)	1150
Max continuous operating temperature in air (°C)	300
Magnetic properties	non-magnetic

**Corrosion resistance performance**

Working in atomsphere at 200	good
Air and oxygen contain Gases	general
gases with Nitrogen	general
gases with sulfur oxidability	general
gases with sulfur oxidability	bad
carburization	good

**Style of supply**

Alloys Name	Type	Dimension
OhmAlloy030W	Wire	D=0.06mm~8mm
OhmAlloy030R	Ribbon	W=0.4~40mm T=0.05~2.9m
OhmAlloy030S	Strip	W=8~200mm T=0.1~3.0
OhmAlloy030F	Foil	W=6~120mm T=0.005~0.1
OhmAlloy030B	Bar	Dia=8~100mm L=50~1000



**Pay Attention to Ohmalloy**