

Resistance Alloy Cr20Ni80

Standard

EN: NiCr8020 / 2.4869
 UNS: N06003
 ASTM B344: 80Ni-20Cr
 JIS: NCHW1 / NCHRW1
 GB/T 1234: Cr20Ni80

Chemical Composition (%)

Ni: Remainder
 Cr: 20-23
 Fe: max. 1.0

Physical Properties

Density (g/cm ³)	8.4
Resistivity (μΩ/m)	1.09
Coefficient of thermal expansion 10 ⁻⁶ /K	18
Thermal conductivity W/(m*K)	15
Melting point (°C)	1400
Max. Working Temperature (°C)	1200

*value for the lowest temper class

Applications

Ironing machines, water heaters, resistors, plastic moulding dies, soldering irons, metal sheathed tubular elements, cartridge elements,etc.

Merit

Cr20Ni80 is a high grade austenitic alloy. It has good ductibility and strength at high temperature,In industrial furnace use Cr20Ni80 has many advantages due to its excellent mechanical properties in the hot state. Cr20Ni80 has superior life compared to competitive FeCrAl alloys because of the extremely good adhesion properties of the surface oxide.

Mechanical Properties

Tensile strength	Elongation(%)	
Mpa	Dia. > 3.0mm(Wire)	Dia. 0.1-3.0mm(Wire)
	Thk. > 0.2mm(Strip)	Thk. > 0.2mm(Strip)
min. 650	min. 25	min. 20

Physical properties of the above materials are conventional performance indicators.If you have some special requirements,(for example property and tolerance).please contact Kinmachi Company directly, we will give you professional assessments and answers.