

## Resistance Alloy Cr20Ni35

### Standard

EN: X10NiCrSi35-19 / 1.4886  
 UNS: N08330 / Alloy 330  
 ASTM B344: 35Ni-20Cr  
 JIS: NCHW3 / NCHRW3  
 GB/T 1234: Cr20Ni35

### Chemical Composition (%)

Ni: 34-37  
 Cr: 18-21  
 Fe: Remainder

### Physical Properties

Density (g/cm <sup>3</sup> )	7.91
Resistivity (μΩ/m)	1.04
Coefficient of thermal expansion 10 <sup>-6</sup> /K	19
Thermal conductivity W/(m*K)	13
Melting point (°C)	1390
Max. Working Temperature (°C)	1100

\*value for the lowest temper class

### Applications

Industrial heating, Furnaces, muffles, retorts and conveyor systems, heat treating baskets and fixtures.

### Merit

Cr20Ni35 is an alloy comprising of nickel-iron-chromium with silicon as an additive. Using silicon as an additive gives the alloy enhanced oxidation resistance. This alloy exhibits good strength at high temperatures and good resistance to oxidation and reduction environments. The microstructure of the alloy maintains its stability even after being exposed to high temperatures for long durations.

### 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. 600	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.