

Resistant Alloys

Nickel Alloys



1. Chemical composition

	Ni	Cr	Fe	Cu	Others
%	99.0 mini.	-	0.40 max.	0.25 max.	Si+, C+

2. Physical properties

- Resistivity ($\Omega \text{ mm}^2/\text{m}$)	: 0.096
- Temperature coefficient ($\text{K} \times 10^{-6}/^\circ\text{C}$) from 20 to 100 °C	: 6 170
- Thermal conductivity at 120 °C ($\text{Wm}^{-1} \text{ } ^\circ\text{C}^{-1}$)	: 60
- Coefficient of linear expansion (coeff. $10^{-6}/^\circ\text{C}$) from 20 to 100 °C	: 13.30
- Density (g/cm^3)	: 8.90
- Melting point ($^\circ\text{C}$)	: 1 450
- Maximal operating temperature ($^\circ\text{C}$)	: 315

Standard mechanical properties

- Tensile Strength (daN/mm^2)	: 50
- Yield Strength (daN/mm^2)	: 30
- Elongation (A% on 100 mm)	: 25
- Hardness (HV)	: 120

3. Typical Applications

Nickel 200 has very good characteristics of malleability and solderability. Moreover it has an excellent resistance to corrosion.

It is used for a variety of processing equipment. In the clothing of electric resistances, it can enter in the composition of cold connections.

April 2012 - The data enclosed in this document are only given as indicative values and correspond to our standard products. Different specific requirements are subject to discussion and formal approval by Aperam Alloys Rescal. For further information or special request, please contact us.