

Resistant Alloys

Nickel Alloys



1. Chemical composition

	Ni	Cr	Fe	Cu	Others
%	99.0 mini.	-	0.40 max.	0.25 max.	C ≤ 0.02

2. Physical properties

- Resistivity (Ω mm ² /m)	: 0.085
- Temperature coefficient (K x 10 ⁻⁶ /°C) from 20 to 100 °C	: 5 000
- Thermal conductivity at 120 °C (Wm ⁻¹ C ⁻¹)	: 60
- Coefficient of linear expansion (coeff. 10 ⁻⁶ /°C) from 20 to 100 °C	: 13.30
- Density (g/cm ³)	: 8.90
- Melting point (°C)	: 1 450
- Maximal operating temperature (°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)	: 90

3. Typical Applications

Nickel 201 is used for replacement of Nickel 200 when very high qualities of malleability are required.

Lower carbon content of Nickel 201 prevents embrittlement by intergranular carbon at temperatures over 315 °C and reduces hardness, making it particularly suitable for cold-form items.

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.