

Resistant Alloys

Nickel Chromium Alloys



1. Chemical composition

	Ni	Cr	Fe	Cu	Others
%	30	20	Bal.	-	Si +

2. Physical properties

- Resistivity ($\Omega \text{ mm}^2/\text{m}$)	: 1.04
- Temperature coefficient ($\text{K} \times 10^{-6}/^\circ\text{C}$) from 20 to 1000 °C	: 250
- Thermal conductivity at 120 °C ($\text{Wm}^{-1} \text{ } ^\circ\text{C}^{-1}$)	: 13
- Coefficient of linear expansion (coeff. $10^{-6}/^\circ\text{C}$) from 20 to 1000 °C	: 18
- Density (g/cm^3)	: 7.90
- Creeping point in	
- at 800 °C	: 20
- at 1 000°C	: 4
- Melting point (°C)	: 1 390
- Maximal operating temperature (°C)	: 1 000

Standard mechanical properties

- Tensile Strength (daN/mm^2)	: 75
- Yield Strength (daN/mm^2)	: 35
- Elongation (A% on 100 mm)	: ≥ 30
- Hardness (HV)	: 220

3. Typical Applications

Resistohm 30 presents the same applications fields as Resistohm 40 (please see Resistohm 40 technical data-sheet) but with a little lower resistivity which imposes a maximum operating temperature of 1000°C and a higher ventilation as for Resistohm 40.

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.