

## TECHNICAL DATA SHEET

# Superalloy NC

**General notes:**

- » **Ni-Cr-Mo superalloy**
- » excellent strength from room temperature to 800 °C
- » very high shape retention
- » resistant to fatigue
- » fully non-magnetic (100%)
- » excellent corrosion resistance to most chemicals, salts and acids
- » typical applications include non-magnetic tools for electronic and watch industry applications and for laboratory and medical applications in aggressive chemical and extreme environments (aerospace, nuclear, marine)

## Mechanical properties

State	<b>50% cold reduction</b>
Density	<b>8.4 g/cm<sup>3</sup></b>
Hardness, Vickers	<b>260 HV</b>
Tensile strength, ultimate	<b>925 MPa</b>
Tensile strength, yield	<b>485 MPa</b>
Elongation, break	<b>50%</b>
Modulus of elasticity	<b>208 GPa</b>

## Thermal properties

Coef. of lin. therm expansion	<b>12.8 E-6/°C</b>	25°C-100°C
Coef. of lin. therm expansion	<b>13.4 E-6/°C</b>	25°C-300°C
Specific heat capacity	<b>0.41 J/(g·K)</b>	
Thermal conductivity	<b>10 W/(m·K)</b>	
Continuous use temperature	<b>600°C</b>	
Max service temperature, air	<b>980°C</b>	

## Electrical properties

Resistivity	<b>1.29 E-4 Ohm.cm</b>
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