TECHNICAL DATA SHEET

Superalloy NC

General notes:

- **Ni-Cr-Mo superalloy**
- excellent strength from room temperature to 800°C
- six times harder than antimagnetic stainless steel
- resistant to fatigue, very high shape retention
- fully non-magnetic
- 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 environments

Mechanical properties

State	**50% cold reduction**
Density	**8.4 g/cm³**
Hardness Vickers 10	**220**
Tensile strength, ultimate	**1500 MPa**
Tensile strength, yield	**1250 MPa**
Elongation, break	**5%**
Modulus of elasticity	**208 GPa**

Thermal properties

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

Electrical properties

Resistivity	**1.29 E-4 Ohm.cm**