

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

Electrical properties

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

This document contains information based on average values as obtained from the results of laboratory tests and observations made on the material. Ideal-Tek SA declines all responsibility from an improper use of the product described in this document.