

TECHNICAL DATA SHEET

Stainless steel type 420A

General notes:

- » **Martensitic higher carbon steel** (Material number 1.4021, AISI number 420A)
- » Good corrosion and heat resistant
- » Magnetizable
- » Hardenable by heat treatment
- » Improved machinability
- » It is a martensitic grade which exhibits good mechanical properties coupled with good corrosion resistance.
- » Typical applications include tweezers and cutting tools for the electronic industry, watch-makers, jewelers and laboratory and medical applications in mild aggressive chemical environments

Composition

Component	Wt. %	Component	Wt. %	Component	Wt. %
C	0.16-0.25	Si	≤1.0	Mn	≤1.5
P	≤0.040	S	≤0.030	Cr	12.0-14.0

Mechanical properties

Density	7.70 g/cm³
Hardness, Vickers	540 HV
Tensile strength, ultimate	800 MPa
0.2% Yield stress	500-600 MPa
Modulus of elasticity	215 GPa

Thermal properties

Coef. of lin. therm expansion	11 E-6/°C	<i>20°C-200°C</i>
Coef. of lin. therm expansion	11.7 E-6/°C	<i>20°C-400°C</i>
Specific heat capacity	460 J/(Kg K)	<i>20°C</i>
Thermal conductivity	30 W/(m K)	<i>20°C</i>

Electrical properties

Resistivity	0.6 E-4 Ohm.cm
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