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

<table>
<thead>
<tr>
<th>Component</th>
<th>Wt.%</th>
<th>Component</th>
<th>Wt.%</th>
<th>Component</th>
<th>Wt.%</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.16-0.25</td>
<td>Si</td>
<td>≤1.0</td>
<td>Mn</td>
<td>≤1.5</td>
</tr>
<tr>
<td>P</td>
<td>≤0.040</td>
<td>S</td>
<td>≤0.030</td>
<td>Cr</td>
<td>12.0-14.0</td>
</tr>
</tbody>
</table>

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

Electrical properties

Resistivity | 0.6 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.