Electronics

Tweezers
00D High Precision Tweezers

4 3/4" 120 mm
Same as 00, serrated tips and grips

00D.SA  Anti-Magnetic Anti-Acid Stainless Steel

General Notes

- low carbon austenitic steel (Material number 1.4435, DIN X2CrNiMo18-14-3, AISI number 316L)
- contains from 16.5 to 18.5 wt% chromium and has important quantities of nickel and molybdenum as additional alloying elements
- non-magnetizable
- good corrosion resistance to most chemicals, salts and acids
- generally used where corrosion resistance and toughness are primary requirements
- typical applications include tweezers for the electronic industry, watch-makers, jewelers and laboratory and medical applications in moderately 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>≤0.03</td>
<td>Si</td>
<td>≤1.0</td>
<td>Mn</td>
<td>≤2.0</td>
</tr>
<tr>
<td>P</td>
<td>≤0.045</td>
<td>S</td>
<td>≤0.03</td>
<td>Cr</td>
<td>17.0-19.0</td>
</tr>
<tr>
<td>Mo</td>
<td>2.5-3.0</td>
<td>Ni</td>
<td>12.5-15.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Mechanical properties:**

State

- annealed

Density

- 8.0 g/cm³

hardness HB30

- ≤215

Hardness Rockwell B

- 79

Tensile strength, ultimate

- 500-700 MPa

Tensile strength, yield

- 290

0.2% Yield stress

- ≤200 MPa

Elongation, break

- 40%

Modulus of elasticity

- 200 GPa

**Thermal properties**

- Coef. of lin. therm expansion
  
  - 16.0 E-6/^°C
  
  - 20°C-100°C

- Coef. of lin. therm expansion
  
  - 17.0 E-6/^°C
  
  - 20°C-300°C

- Specific heat capacity:
  
  - 0.50 J/(g·K)

- Thermal conductivity:
  
  - 15W/(m·K)

- Continuous use temperature:
  
  - 350°C

- Max service temperature, ait
  
  - 925°C

**Electrical properties**

- Resistivity
  
  - 0.75 E-4 Ohm·cm

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Credits