STAINLESS STEEL 304

Key Features
Good mechanical properties and corrosion resistance

IMPORTANT
We will manufacture to your required mechanical properties.

STAINLESS STEEL 304 available in:-
- Round wire
- Bars or lengths
- Flat wire
- Shaped wire
- Rope/Strand

Packaging
- Coils
- Spools
- Bars or lengths

RANGE
0.025mm to 21mm (.001” to .827”)
Order 3m to 3t (10 ft to 6000 Lbs)
Delivery: within 3 weeks

Wire to your spec
E.M.S available
Technical support
### Chemical Composition

<table>
<thead>
<tr>
<th>Element</th>
<th>Min %</th>
<th>Max %</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-</td>
<td>0.07</td>
</tr>
<tr>
<td>Mn</td>
<td>-</td>
<td>2.00</td>
</tr>
<tr>
<td>P</td>
<td>-</td>
<td>0.045</td>
</tr>
<tr>
<td>S</td>
<td>-</td>
<td>0.030</td>
</tr>
<tr>
<td>Si</td>
<td>-</td>
<td>1.00</td>
</tr>
<tr>
<td>Cr</td>
<td>17.50</td>
<td>19.50</td>
</tr>
<tr>
<td>Ni</td>
<td>8.00</td>
<td>10.50</td>
</tr>
</tbody>
</table>

### Specifications

- **ASTM A313**
- **ASTM A580**
- **BS 970**
- **BS 2056**

### Key Features

Good mechanical properties and corrosion resistance

### Typical Applications

- Springs
- Engineered components
- Wire mesh
- Wire cloth
- Hose braiding

### Designations

- W.Nr. 1.4301
- W.Nr. 1.4307
- UNS S30400
- AWS 161

### Specifications

- **Density**: $8.0 \text{ g/cm}^3$, $0.289 \text{ lb/in}^3$
- **Melting Point**: $1454 \text{ °C}$, $2650 \text{ °F}$
- **Coefficient of Expansion**: $18.2 \mu\text{m/m °C (20 – 100 °C)}$, $10.1 \times 10^{-6} \text{ in/in °F (70 – 212 °F)}$
- **Modulus of Rigidity**: $70.3 \text{ kN/mm}^2$, $10196 \text{ ksi}$
- **Modulus of Elasticity**: $187.5 \text{ kN/mm}^2$, $27195 \text{ ksi}$

### Heat Treatment of Finished Parts

<table>
<thead>
<tr>
<th>Condition as supplied by Alloy Wire</th>
<th>Type</th>
<th>Temperature</th>
<th>Time (Hr)</th>
<th>Cooling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annealed or Spring Temper</td>
<td>Stress Relieve</td>
<td>250 °C, 480 °F</td>
<td>1</td>
<td>Air</td>
</tr>
</tbody>
</table>

### Properties

<table>
<thead>
<tr>
<th>Condition</th>
<th>Approx. tensile strength</th>
<th>Approx. operating temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N/mm²</td>
<td>ksi</td>
</tr>
<tr>
<td>Solution Annealed</td>
<td>600 – 800</td>
<td>87 – 116</td>
</tr>
<tr>
<td>Spring Temper</td>
<td>1300 – 2200</td>
<td>189 – 319</td>
</tr>
</tbody>
</table>

*The above tensile strength ranges are typical. If you require different please ask.*