Typical Applications

- Aerospace fabrication
- Panels
- Bodywork
- Blanking panels
- Space frames

Product Description

Austenitic chromium-nickel stainless steel stabilised with niobium. The material is available in soft annealed sheet and strip and is suitable for low strength components requiring good corrosion resistance and cold workability. Good weldability. Tensile strength (Rm) 540 N/mm². BS S527 is the British aerospace standard for stainless steel 347, and is often supplied dual-certified to the U.S. aerospace specification AMS 5512.

Cold Working

Good cold workability

Key Features:

- Added Niobium
- Good corrosion resistance and cold workability
- Low strength applications
- Good workability
- Good weldability

Corrosion Resistance

Good corrosion resistance

Weldability

Good weldability

Availability

Sheet, strip

Chemical Composition (weight %)

<table>
<thead>
<tr>
<th>Weight (%)</th>
<th>C</th>
<th>Si</th>
<th>Mn</th>
<th>Cr</th>
<th>Mo</th>
<th>P</th>
<th>S</th>
<th>Ni</th>
<th>Nb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min</td>
<td>0.2</td>
<td>0.5</td>
<td>17.0</td>
<td></td>
<td></td>
<td></td>
<td>9.0</td>
<td>10</td>
<td>X</td>
</tr>
<tr>
<td>Max</td>
<td>0.08</td>
<td>1.0</td>
<td>2.0</td>
<td>19.0</td>
<td>1.0</td>
<td>0.035</td>
<td>0.025</td>
<td>11.0</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Mechanical Properties (softened condition)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Tensile Strength (Rm) N/mm²</th>
<th>Proof Strength Rp 0.2, N/mm²</th>
<th>Elongation in 5.65 √Cross Sectional Area (%)</th>
<th>Hardness</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>S527</td>
<td>540</td>
<td>210</td>
<td>30</td>
<td>179 max</td>
<td>&lt;1.5mm</td>
</tr>
<tr>
<td>S527</td>
<td>540</td>
<td>210</td>
<td>35</td>
<td>179 max</td>
<td>1.5 - 3.0mm</td>
</tr>
<tr>
<td>S527</td>
<td>540</td>
<td>210</td>
<td>40</td>
<td>179 max</td>
<td>&gt;3.0mm</td>
</tr>
</tbody>
</table>

Technical Assistance

Our knowledgeable staff backed up by our resident team of qualified metallurgists and engineers, will be pleased to assist further on any technical topic.