L95 Aluminium T651
Technical Datasheet

Typical Applications

• High stressed components for commercial & military aircraft
• Rolling stock for machine parts and tools (for rubber and plastics)
• Fixings including screws, nuts, bolts & rivets
• Nuclear applications

Product Description

L95 aluminium alloy is a very high strength plate product which is supplied to the aerospace sector in both commercial and military markets. Normally supplied as T651 temper, the alloy also benefits from a very high fatigue strength. The material may be clad with 7072 which will provide better protection against stress corrosion cracking (SCC).

Key features:

• Very high strength alloy
• Very high fatigue strength
• Corrosion protection recommended
• Most common temper for L95 is T651

Related material specifications:

Aluminium alloy L95 - 7075 is covered by standard BS 2L95 (1971). BS2L95 (1971) was superseded by BS EN 2126 on 15 October 1996.

Corrosion Resistance

Corrosion protection recommended for outdoor atmosphere.

Availability

Plate

Machinability

Fair

Chemical Composition (weight %)

<table>
<thead>
<tr>
<th></th>
<th>Zn</th>
<th>Mg</th>
<th>Cu</th>
<th>Fe</th>
<th>Si</th>
<th>Cr</th>
<th>Mn</th>
<th>Ti+Zr</th>
<th>Ni</th>
<th>Sn</th>
<th>Pb</th>
<th>Al</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min.</td>
<td>5.10</td>
<td>2.10</td>
<td>1.20</td>
<td>0.10</td>
<td></td>
<td></td>
<td>0.10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Bal</td>
</tr>
<tr>
<td>Max.</td>
<td>6.40</td>
<td>2.90</td>
<td>2.00</td>
<td>0.50</td>
<td>0.40</td>
<td>0.25</td>
<td>0.30</td>
<td>0.20</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
<td>0.15</td>
<td></td>
</tr>
</tbody>
</table>

Mechanical Properties

<table>
<thead>
<tr>
<th>Thickness (mm)</th>
<th>Proof Strength (min)</th>
<th>Tensile Strength (min)</th>
<th>Elongation % (min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over 6 to &amp; incl. 12.5</td>
<td>450</td>
<td>530</td>
<td>8</td>
</tr>
<tr>
<td>Over 12.5 up to &amp; incl. 25</td>
<td>450</td>
<td>530</td>
<td>6</td>
</tr>
<tr>
<td>Over 25 up to &amp; incl. 40</td>
<td>450</td>
<td>530</td>
<td>5</td>
</tr>
<tr>
<td>Over 40 up to &amp; incl. 63</td>
<td>440</td>
<td>510</td>
<td>5</td>
</tr>
<tr>
<td>Over 63 up to &amp; incl. 90</td>
<td>410</td>
<td>500</td>
<td>5</td>
</tr>
</tbody>
</table>

Properties based on T651 temper and given in the long transverse direction only.

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.