L97 Aluminium T351
Technical Datasheet

Aluminium Plate

Typical Applications
- Aircraft components
- General engineering
- High strength fabricated and machine parts for aircraft
- Structural applications
- Rivets
- Military equipment
- Truck wheels

Product Description
L97 is a heat-treatable aluminium alloy which offers high strength, high fatigue strength and very good machining characteristics. Used in high strength fabrication or machined parts in the aerospace industry, the alloy is slightly higher in strength than 2014(A), 2017A and 2030. The most common temper for L97 aluminium alloy is T351.

Key features:
- High strength alloy
- High fatigue strength
- Very good machining characteristics
- Suitable for welding only by resistance welding

Alloy Designations
Aluminium alloy L97 - 2024 is covered by standard BS 2L97 (1971)

Corrosion Resistance
Corrosion protection only with cladding or other protection method.

Availability
Plate

Machinability
Very good

Chemical Composition (weight %)

<table>
<thead>
<tr>
<th></th>
<th>Mn</th>
<th>Mg</th>
<th>Ni</th>
<th>Pb</th>
<th>Ti+Zr</th>
<th>Fe</th>
<th>Si</th>
<th>Zn</th>
<th>Cr</th>
<th>Sn</th>
<th>Cu</th>
<th>Al</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min.</td>
<td>0.30</td>
<td>1.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.50</td>
<td>0.20</td>
<td>0.10</td>
<td>0.05</td>
<td>3.80</td>
<td>Bal</td>
</tr>
<tr>
<td>Max.</td>
<td>0.90</td>
<td>1.80</td>
<td>0.05</td>
<td>0.05</td>
<td>0.20</td>
<td>0.50</td>
<td>0.20</td>
<td>0.10</td>
<td>0.05</td>
<td>4.90</td>
<td>Bal</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 up to &amp; incl. 12.5</td>
<td>280</td>
<td>430</td>
<td>10</td>
</tr>
<tr>
<td>Over 12.5 up to &amp; incl. 25</td>
<td>280</td>
<td>430</td>
<td>10</td>
</tr>
<tr>
<td>Over 25 up to &amp; incl. 40</td>
<td>280</td>
<td>420</td>
<td>9</td>
</tr>
<tr>
<td>Over 40 up to &amp; incl. 63</td>
<td>270</td>
<td>410</td>
<td>9</td>
</tr>
<tr>
<td>Over 63 up to &amp; incl. 90</td>
<td>270</td>
<td>410</td>
<td>8</td>
</tr>
<tr>
<td>Over 90 up to &amp; incl. 115</td>
<td>270</td>
<td>400</td>
<td>8</td>
</tr>
<tr>
<td>Over 115 up to &amp; incl. 140</td>
<td>260</td>
<td>390</td>
<td>7</td>
</tr>
</tbody>
</table>

Properties based on T351 temper shown in the long tranverse direction.

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.

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