L63
Technical Datasheet

Drawn Aluminium Tube

Applications

• Aerospace fittings
• Military vehicles
• Aircraft structures and truck frames
• Structural applications
• High strength structural components

Product Description

L63 is a high strength aluminium alloy tube product which retains its strength after heat treatment. It is a 4 - 5% copper alloy and is supplied in the fully heat-treated condition (solution heat treated & artificially aged). L63 is used widely in the aerospace and defence sector in the manufacture of high strength components. L63 aluminium alloy tube is normally stocked in the T6 temper in pipe/tube form. The material offers very good machinability.

Chemical Composition (weight %)

<table>
<thead>
<tr>
<th>Weight (%)</th>
<th>Si</th>
<th>Fe</th>
<th>Cu</th>
<th>Mn</th>
<th>Mg</th>
<th>Cr</th>
<th>Ni</th>
<th>Zn</th>
<th>Pb</th>
<th>Sn</th>
<th>Ti + Zr</th>
</tr>
</thead>
<tbody>
<tr>
<td>min.</td>
<td>0.5</td>
<td>3.9</td>
<td>0.4</td>
<td>0.2</td>
<td>0.2</td>
<td>0.1</td>
<td>0.2</td>
<td>0.2</td>
<td>0.05</td>
<td>0.05</td>
<td>0.2</td>
</tr>
<tr>
<td>max.</td>
<td>0.9</td>
<td>0.5</td>
<td>5.0</td>
<td>0.8</td>
<td>0.1</td>
<td>0.2</td>
<td>0.2</td>
<td>0.05</td>
<td>0.05</td>
<td>0.2</td>
<td></td>
</tr>
</tbody>
</table>

Mechanical Properties

| 0.2% Proof Stress | 370 N/mm² |
| Tensile Strength (min) | 450 N/mm² |
| Strip Test Piece (min %) | 7 |

Key features:

• Heat treatable
• Good strength after heat treatment
• Easily plated
• Can be hard anodised

Corrosion Resistance

Resistance to atmospheric attack is poor.

Machinability

Very good

Availability

Pipe, tube

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.

www.smithmetal.com

sales@smithmetal.com

All information in our data sheet is based on approximate testing and is stated to the best of our knowledge and belief. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of trading. © Smiths Metal Centres 2018