2124 Aluminium
Technical Datasheet

High Strength Aluminium Alloy

Applications
• Moderately elevated temperature applications
• Wing skins
• Use in high performance military aircraft
• Fuselage bulkheads

Key features:
• Guaranteed fracture toughness
• Good strength retention
• Good creep resistance
• Fracture toughness higher than 2024

Product Description
2124 Aluminium Alloy is a higher purity form of 2024 and was developed specifically for elevated temperature applications. The aerospace sector is a primary market for this alloy as fracture toughness of the material is guaranteed, and can be used in critical components such as the fuselage and wings. The fracture toughness of the material is superior to 2024. This alloy is also recommended for applications requiring improved short-transverse ductility,

Related Material Specifications
• AMS 4221
• QQ A-250/29
• ASTM B209
• QQ A250/9

Corrosion Resistance
Resistance to atmospheric attack is poor. Excellent exfoliation corrosion resistance.

Availability
Sheet, plate

Machinability
Good

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>Zn</th>
<th>Ti</th>
<th>Al</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>min.</td>
<td></td>
<td></td>
<td>3.80</td>
<td>0.30</td>
<td>1.20</td>
<td>1.80</td>
<td>0.10</td>
<td>0.25</td>
<td>0.15</td>
<td>Bal 0.05</td>
</tr>
<tr>
<td>max.</td>
<td>0.20</td>
<td>0.30</td>
<td>4.90</td>
<td>0.90</td>
<td>1.80</td>
<td>0.10</td>
<td>0.25</td>
<td>0.15</td>
<td>Bal 0.15</td>
<td></td>
</tr>
</tbody>
</table>

Mechanical Properties

<table>
<thead>
<tr>
<th>Thickness (in.)</th>
<th>Tensile Strength (ksi)</th>
<th>Yield Strength (ksi)</th>
<th>Elongation %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.001-2.00</td>
<td>66</td>
<td>57</td>
<td>5</td>
</tr>
<tr>
<td>5.001-6.00</td>
<td>63</td>
<td>54</td>
<td>4</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.

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