2618A
Technical Datasheet

Aluminium Bar & Plate

Typical Applications
• Aerospace & Defence Components
• High Technology Applications

Product Description
A strong aluminium alloy containing nominally 2% copper
and 1.5% magnesium. Produced as bar, plate and tube. Also available as clad sheet and strip. Solution treated and
artificially aged to achieve the T6 condition or with the
addition of controlled stretching to achieve the T6511 temper. 2618A can be employed to a maximum of 300°C and retains mechanical strength relatively well to around 200°C and above. The alloy has a density of 2.75 g/cc.

Aerospace Equivalent (bar)
- DTD 5014A

General Engineering Euronorm
- EN 573 EN AW-2618A (composition)
- AlCu2Mg1.5Ni

Old BS (pre-1980) Specification
- H16

Surface Treatment
Anodising
- Protective - Fair
- Bright - Unsuitable
Plating
- Hard - Fair
Vitreous Enamelling
- Colour - Fair

Weldability
Brazing & Soldering
- Not Recommended
Oxygen
- Not Recommended
Inert Gas
- Not Recommended

Corrosion Resistance
Resistance to Atmospheric Attack - Fair.

Machinability
Good

Cut Size to Sawn Blanks
Cut to length in house to tolerances - Nil + 1.6mm

Cut SizetoSawnBlanks

Chemical Composition (weight % for DTD 5014A)

<table>
<thead>
<tr>
<th></th>
<th>Al</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>Ti+Zr</th>
<th>Pb+Sn</th>
<th>Ti</th>
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</thead>
<tbody>
<tr>
<td>Min. Rem</td>
<td>0.9</td>
<td>1.8</td>
<td>1.2</td>
<td>0.8</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Max. Rem</td>
<td>0.25</td>
<td>1.4</td>
<td>2.7</td>
<td>0.2</td>
<td>1.8</td>
<td>1.4</td>
<td>0.1</td>
<td>0.2</td>
<td>0.2</td>
<td>0.05</td>
<td>0.2</td>
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Mechanical Properties (Minima for T6 Condition Bar/Sections - DTD5014A)

<table>
<thead>
<tr>
<th>Thickness &gt;, mm</th>
<th>Thickness =/&lt;, mm</th>
<th>0.2% PS, MPa</th>
<th>UTS, MPa</th>
<th>Elong. % on 50 mm</th>
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</thead>
<tbody>
<tr>
<td>10</td>
<td>10</td>
<td>320</td>
<td>400</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>100</td>
<td>340</td>
<td>420</td>
<td>7</td>
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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

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