Typical Applications

- Aerospace Components
- Defence Components
- High Technology Applications

Product Description

A medium strength alloy grade to the American Standard, solution treated and artificially aged to achieve the T6 condition. Also available in the ‘O’ (annealed) and ‘T4’ (solution treated only) conditions to accommodate various degrees of forming, drawing or spinning operations.

General Engineering Equivalent
- 6061 - EN 485/515/573
- Old BS - HS20TF (BS1470)
- AECMA Euronorm - BSEN2694, 3341

Surface Treatment

- Anodising
  - Protective - Good
  - Bright - Fair
  - Hard - Very Good
  - Colour - Good

- Plating & Vitreous Enamelling
  - Special pre-treatment necessary to achieve successful results

Weldability

- Brazing & Soldering - Good
- Oxygen - Fair
- Inert Gas - Very Good
- Resistance, Spot, Beam - Very Good

Formability

- Good

Corrosion Resistance

- Resistance to Atmospheric Attack - Good

Cut Size to Guillotined Blanks

Edge deviation over cut length/width +/- 0.2mm per m (maximum thickness 6.35mm)

Chemical Composition (weight %)

<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>Zn</th>
<th>Ti</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min.</td>
<td>REM</td>
<td>0.4</td>
<td>0.15</td>
<td>0.8</td>
<td>0.04</td>
<td>0.04</td>
<td></td>
<td>0.25</td>
<td>0.15</td>
<td>0.05 each</td>
</tr>
<tr>
<td>Max.</td>
<td>REM</td>
<td>0.8</td>
<td>0.7</td>
<td>0.40</td>
<td>0.15</td>
<td>1.2</td>
<td>0.35</td>
<td>0.25</td>
<td>0.15</td>
<td>0.15 total</td>
</tr>
</tbody>
</table>

Mechanical Properties (minima, T6 condition)

<table>
<thead>
<tr>
<th>Size Range (in)</th>
<th>Tensile Strength (ksi)</th>
<th>0.2% Proof Stress (ksi)</th>
<th>Elongation on 4D (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.010 – 0.020</td>
<td>42.0</td>
<td>35.0</td>
<td>8</td>
</tr>
<tr>
<td>0.021 – 0.249</td>
<td>42.0</td>
<td>35.0</td>
<td>10</td>
</tr>
</tbody>
</table>

NB: Figures shown above are for ‘T6’ condition.

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

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