1200 Aluminium
Technical Datasheet

Commercial Aluminium Alloy

Applications
• General fabrication
• Processing equipment (chemical, pharmaceutical)
• Sheet metal work
• Boiler fabrication
• Industrial pressure vessels (food sector)
• Kitchenware

Product Description
Commercial aluminium alloy grade 1200 has high corrosion resistance with slightly higher strength than 1050a. The alloy also boasts high thermal conductivity and reflectivity although this is not quite as high as 1050. The alloy has a 99% minimum requirement for aluminium content and yet is still classed as a non-heat treatable commercially pure aluminium. Grade 1200 has been largely replaced by grade 1050a.

Product Description

Product Description

Related Material Specifications
• 6L16, Alloy 1200
• 5L34, Alloy 1200
• L116, Alloy 1200
• BA 99.0%

Key features:
• High thermal conductivity
• Very good weldability
• Very good atmospheric corrosion resistance
• Easily joined
• High anodising capability

Corrosion Resistance
High

Cold Working
Excellent

Availability
Sheet

Chemical Composition (weight %)

<table>
<thead>
<tr>
<th>Weight (%)</th>
<th>Al</th>
<th>Fe + Si</th>
<th>Mg</th>
<th>Ti</th>
<th>Mg</th>
<th>Cu</th>
<th>Zn</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>min.</td>
<td>99.0</td>
<td>1.0</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
<td>0.10</td>
<td>0.15</td>
<td></td>
</tr>
<tr>
<td>max.</td>
<td></td>
<td>0.05</td>
<td>0.05</td>
<td></td>
<td>0.05</td>
<td>0.10</td>
<td>0.15</td>
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</tr>
</tbody>
</table>

Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting Point</td>
<td>660°C</td>
</tr>
<tr>
<td>Density</td>
<td>2.71 g/cm³</td>
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<tr>
<td>Thermal conductivity</td>
<td>226 W/m*K</td>
</tr>
<tr>
<td>Thermal expansion coefficient</td>
<td>24 x10⁻⁶/K</td>
</tr>
<tr>
<td>Electrical Conductivity</td>
<td>59.5 IACS</td>
</tr>
<tr>
<td>Modulus of elasticity</td>
<td>69 GPa</td>
</tr>
</tbody>
</table>

Chemical Composition (weight %)

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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
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