6063 Aluminium Technical Datasheet

Commercial Aluminium Alloy

Applications

• Architectural
• Extrusions
• Doors
• Window frames
• Shop fittings
• Balustrading

Product Description

6063 aluminium alloy is often referred to as an architectural alloy and is used in the production of intricate extrusions. With an aesthetically pleasing finish and high corrosion resistance the alloy is readily suited to welding and can be easily anodised. 6063 aluminium is most commonly supplied as T6 temper. If supplied in the T4 condition the alloy has good formability.

Key features:

• Medium strength alloy
• Used in intricate extrusions
• Aesthetically pleasing finish
• High corrosion resistance
• T6 temper most common, T4 has good formability

Chemical Composition (weight %)

<table>
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<tr>
<th></th>
<th>Mn</th>
<th>Fe</th>
<th>Mg</th>
<th>Si</th>
<th>Zn</th>
<th>Ti</th>
<th>Cr</th>
<th>Cu</th>
<th>Al</th>
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<td>0.45</td>
<td>0.20</td>
<td></td>
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<td>0.10</td>
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<tr>
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<td>0.35</td>
<td>0.90</td>
<td>0.60</td>
<td>0.10</td>
<td>0.10</td>
<td>0.10</td>
<td>0.10</td>
<td>Bal</td>
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Mechanical Properties

- Tensile Strength: 100 MPa
- Proof Stress: 50 MPa
- Shear Strength: 70 MPa
- Elongation A50 mm: 27%
- Brinell Vickers: 25 HV

Physical Properties

- Density: 2.70 g/cm³
- Melting Point: 660 °C
- Thermal Expansion: 23.5 x 10⁻⁶ /K
- Modulus of Elasticity: 69.5 GPa
- Thermal Conductivity: 200 W/m.K

Corrosion Resistance

High

Availability

Extrusions, 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

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