KASTAL® 100
Technical Datasheet

Sawn Low-Tension Aluminium Plate

Typical Applications
- Tooling Aerospace Industry
- CNC-Components
- Mould and Gauge Making
- Tool Technology
- Food Technology
- Security and Medical Technology
- General and Precision Engineering

Product Description
Kastal® 100 aluminium tooling plate is an outstanding material which benefits from added qualities whilst offering costs savings due to the materials' excellent machinability. Kastal® 100 is a low porosity alloy with fine grain structure and has outstanding dimensional stability combined with good mechanical and physical properties.

Key features
- Low porosity
- Fine grain structure
- Excellent machining characteristics
- Dimensional stability
- Good mechanical & physical properties
- Cost saving material

Availability
Tooling Plate

Corrosion resistance
Very good

Weldability
Good

Mechanical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Strength Rm</td>
<td>240 - 290 MPa (N/mm²)</td>
</tr>
<tr>
<td>0.2 % Yield Strength Rp 0.2</td>
<td>110 - 130 MPa (N/mm²)</td>
</tr>
<tr>
<td>Elongation A 5 %</td>
<td>15</td>
</tr>
<tr>
<td>Brinell Hardness HB</td>
<td>70</td>
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</table>

Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Density</td>
<td>2.66 g/cm³</td>
</tr>
<tr>
<td>Thermal Conductivity</td>
<td>110 - 140 W/(mK)</td>
</tr>
<tr>
<td>Electrical Conductivity</td>
<td>16 - 19 MS/m (m/Ω mm²)</td>
</tr>
<tr>
<td>Modulus of Elasticity</td>
<td>~70,000 N/mm²</td>
</tr>
<tr>
<td>Coefficient of Thermal Expansion</td>
<td>24.2 x10⁻⁶/K</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.

www.smithmetal.com  sales@smithmetal.com

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