## Aluminum Extrusion Alloys

<table>
<thead>
<tr>
<th>Alloy</th>
<th>Characteristics</th>
<th>Suitable Applications</th>
<th>Major Alloying Elements %</th>
<th>Temper</th>
<th>Ultimate Tensile Strength PSI</th>
<th>Yield Tensile Strength PSI</th>
<th>Elongation in 2 Inches (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6063</td>
<td>Most economical. Excellent extrudability. Good corrosion resistance, finishing response, machinability, formability and weldability.</td>
<td>heat sinks</td>
<td>0.20 - 0.60 Si Max 0.35 Fe 0.45 - 0.90 Mg</td>
<td>T1 - as extruded</td>
<td>16,000</td>
<td>8,000</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>T4 - formable</td>
<td>18,000</td>
<td></td>
<td>9,000</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>T5 - standard</td>
<td>21,000</td>
<td></td>
<td>15,000</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>T6 - machinable</td>
<td>30,000</td>
<td></td>
<td>25,000</td>
<td>10</td>
</tr>
<tr>
<td>6463</td>
<td>Produces a bright, mirror-like, high quality finish. Good machinability and formability.</td>
<td>decorative trim applications</td>
<td>0.20 - 0.60 Si Max 0.15 Fe Max 0.21 Cu 0.45 - 0.65 Mg</td>
<td>T1 - as extruded</td>
<td>17,000</td>
<td>9,000</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>T5 - standard</td>
<td>22,000</td>
<td></td>
<td>16,000</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>T6 - machinable</td>
<td>30,000</td>
<td></td>
<td>25,000</td>
<td>10</td>
</tr>
<tr>
<td>6005A</td>
<td>Excellent extrudability and strength, low impact resistance, good finishing response, machinability, formability and weldability.</td>
<td>structural applications (comparable to 6061 with better extrudability properties and same mechanical properties)</td>
<td>0.50 - 0.75 Si Max 0.35 Fe 0.40 - 0.70 Mg</td>
<td>T1 - as extruded</td>
<td>25,000</td>
<td>15,000</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>T5 - standard</td>
<td>38,000</td>
<td></td>
<td>35,000</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>T61 - machinable; high strength</td>
<td>38,000</td>
<td></td>
<td>35,000</td>
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</tr>
<tr>
<td>6061</td>
<td>Excellent strength, corrosion resistance and machinability, poor finishing response, good formability and weldability.</td>
<td>transportation and structural applications</td>
<td>0.40 - 0.80 Si Max 0.70 Fe 0.80 - 1.20 Mg</td>
<td>T1 - as extruded</td>
<td>26,000</td>
<td>14,000</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>T4 - formable</td>
<td>26,000</td>
<td></td>
<td>16,000</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>T6 - machinable</td>
<td>35,000</td>
<td></td>
<td>35,000</td>
<td>10</td>
</tr>
</tbody>
</table>