Aluminium alloy 6060 is a medium strength heat treatable alloy with a strength slightly lower than 6005A. It has very good corrosion resistance, very good weldability and good cold formability. It is commonly used for complex cross sections and has very good anodizing response.

Scope
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Aluminium Alloy

<table>
<thead>
<tr>
<th>Alloy</th>
<th>Forms</th>
<th>Characteristics - Properties</th>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN-AW 6060</td>
<td>Extruded round rod/bar</td>
<td>• Very good corrosion resistance • Medium strength • Complex sections • Anodising quality</td>
<td>Architectural sections, frames, lightings, railings, ladders, furniture, fences, flooring</td>
</tr>
</tbody>
</table>

Chemical composition according to EN573-3 (EN - AW %)

<table>
<thead>
<tr>
<th>Alloy</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>Rest</th>
<th>Each</th>
<th>Total</th>
<th>Al</th>
</tr>
</thead>
<tbody>
<tr>
<td>6060</td>
<td>0,30-0,60</td>
<td>0,10-0,30</td>
<td>0,10</td>
<td>0,10-0,60</td>
<td>0,05</td>
<td>0,15</td>
<td>0,10</td>
<td>0,05</td>
<td>0,15</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mechanical properties according to EN 755-2 extruded profiles

<table>
<thead>
<tr>
<th>Alloy</th>
<th>Temper</th>
<th>Wall Thickness e mm*</th>
<th>Tensile strength Rm Mpa</th>
<th>Proof stress Rp0,2 Mpa</th>
<th>Elongation % A50mm</th>
<th>A % min</th>
<th>Brinell Hardness HB**</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN-AW 6060</td>
<td>T4</td>
<td>≤ 25</td>
<td>120</td>
<td>60</td>
<td>14</td>
<td>16</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>T5</td>
<td>≤ 5</td>
<td>160</td>
<td>120</td>
<td>6</td>
<td>8</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>T6</td>
<td>≤ 3</td>
<td>190</td>
<td>150</td>
<td>6</td>
<td>8</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>T66</td>
<td>3 &lt; e ≤ 25</td>
<td>170</td>
<td>140</td>
<td>6</td>
<td>8</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>T66</td>
<td>3 &lt; e ≤ 25</td>
<td>195</td>
<td>150</td>
<td>6</td>
<td>8</td>
<td>70</td>
</tr>
</tbody>
</table>

About Aluminco S.A.
Today, with 33 years of experience, our company has evolved to an integrated vertical aluminium industry focusing on developing, producing and marketing branded aluminium systems for every architectural use. The extrusion department of Aluminco is the "heart" of the factory. Our unit is fully automated equipped with the latest software and hardware. The advanced cooling system of our extrusion press is fully automated, constantly controls the temperature of the extruded profile through air, keeping the appropriate cooling rate for each alloy and temper. The extrusion line is also equipped with automated stacker machine with no human contact eliminating the risk of damaging the extruded profile. Finally the aging ovens are fully automated with continuous temperature control and real time adjustment, safeguarding the optimum temper results.

Aluminium & aluminium alloys
Extruded rod/bar, tubes and precision profiles

Alloy Tempers Temper designation (EN 515)

- T4 Annealed wrought alloys
- T5 Solution heat treated & natural aged
- T6 Solution heat treated & artificially aged (precipitation hardened)
- T64 Solution heat treated & artificially aged (precipitation hardened) Press quenching required
- T66 Cooled from an elevated temperature forming operation & artificially aged (precipitation hardened) to a higher level of mechanical properties through special control of manufacturing processes. Press quenching required.

Physical properties

- Alloys EN-AW 6060
- Metallic range °C 585-650
- Density g/cm³ 2,70
- Electrical conductivity MS/m 34-38
- Thermal conductivity W/(m K) 200-220
- Specific Heat J/(Kg K) 898
- Thermal expansion values
  - -50 to 20 °C (10⁻⁶ K) 21,8
  - 20 to 100 °C (10⁻⁶ K) 23,4
  - 20 to 200 °C (10⁻⁶ K) 24,5
  - 20 to 300 °C (10⁻⁶ K) 25,6
- Youngs Modulus Mpa 69500
- Shear Modulus Mpa 26100

Contact & Procurement
For additional information on Aluminium alloy EN-AW 6060 (AlMgSi0,5)
contact our sales account manager:

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