Overview & application

- High mechanical properties
- Very good machinability with short chips (suitable for high-speed automatic turning)
- Excellent surface quality after machining, also good weldability
- Good corrosion resistance and anodizing quality
- Suitable for automotive, electrical, hydraulic & pneumatic industry
- This alloy will stop its use in May 2021 based on existing EU regulation (RoHS)

Product range

<table>
<thead>
<tr>
<th>Product (Temper)</th>
<th>Round (mm)</th>
<th>Hexagonal (mm)</th>
<th>Shaped (mm²)</th>
<th>Profiles (mm²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drawn</td>
<td>6-80</td>
<td>13-80</td>
<td>200-6400</td>
<td></td>
</tr>
<tr>
<td>Extruded</td>
<td>20-125</td>
<td>15-85</td>
<td>200-14400</td>
<td>500-9900</td>
</tr>
</tbody>
</table>

Typical tempers

- T6 (T6510, T6511), T8, T9

Mechanical properties

<table>
<thead>
<tr>
<th>Product (Temper)</th>
<th>Dimension (mm)</th>
<th>Min. values (EN)</th>
<th>Typical</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rp 0.2 (MPa)</td>
<td>Rm (MPa)</td>
<td>A (%)</td>
</tr>
<tr>
<td>Extruded bars (T6, T6510, T6511)</td>
<td>20x0.125</td>
<td>370</td>
<td>300</td>
</tr>
<tr>
<td>Cold drawn bars (T6)</td>
<td>D≤80</td>
<td>370</td>
<td>300</td>
</tr>
<tr>
<td>Cold drawn bars (T8)</td>
<td>D≤80</td>
<td>345</td>
<td>315</td>
</tr>
<tr>
<td>Cold drawn bars (T9)</td>
<td>D≤80</td>
<td>360</td>
<td>330</td>
</tr>
</tbody>
</table>

Processing properties

- Machinability
- Machining index (chips #/100g) 3500
- MIG-TIG weldability
- Resistance fusion weldability
- Soft soldering & brazing

Protective anodising

- Hard anodising

Corrosion

- Corrosion resistance @ sea water
- Corrosion resistance @ atmosphere
- Corrosion depth ISO 11846B (µm) 250

Physical properties

- Density 2.72 g/cm³
- Young’s modulus of elasticity 69600 MPa
- Coeff. of thermal expansion (20-100°C) 23.4 x10^-6 °C
- Thermal conductivity at 20°C 172 W/m*K
- Specific heat capacity 891 J/kg*K
- Electrical conductivity at 20°C 26 MS/m

Legend:
- Excellent
- Good
- Acceptable
- Conditional
- Not recommended