High precision aluminum cast plate, ACP 5080, is precision surface machined on both sides to industry leading close tolerance standards. Fine grain structure, low porosity and excellent machining characteristics all define the cost saving and value added attributes of ACP 5080. Superb industry leading material dimensional stability is inherent in every plate of ACP 5080, thanks to proprietary process- and manufacturing control, our flatness and tolerances are industry leading, predictable and precise.
ACP 5080

Chemical Composition
EN AW-5083 (AlMg4.5Mn0.7), acc. to DIN EN 573-3 / 3.3547

Material Properties
Machinability very good (HSC/HPS excellent)
Weldability (TIG, MIG) good (with S Al 5183)
Anodising Properties good, not decorative
Polishing very good
Corrosion Resistance very good
Eroding Properties good

Typical Mechanical Properties
Tensile Strength Rm 240 - 290 MPa (N/mm²)
0.2 % Yield Strength R0.2 110 - 130 MPa (N/mm²)
Elongation A 5 % 15
Brinell Hardness HB 70

Typical Physical Properties
Density 96* 10³ lb/in³
Thermal Conductivity 63 - 81 Btu/(ft·h·°F)
Electrical Conductivity ~35% IACS
Modulus of Elasticity 10.3* 10³ksi
Coefficient of Thermal Expansion 13.5* 10⁻⁶/°F

Thickness Range & Sizes
Plates and pre-cut sizes between 0.1969" and 3.94" are available in the following dimensions:

<table>
<thead>
<tr>
<th>Thickness</th>
<th>max. Width*</th>
<th>Length*</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥ 0.1969&quot;</td>
<td>x 51.97&quot;</td>
<td>x 118.90&quot; (up to 236.22&quot;)</td>
</tr>
<tr>
<td>≥ 0.1969&quot;</td>
<td>x 59.84&quot;</td>
<td>x 118.90&quot; (up to 236.22&quot;)</td>
</tr>
<tr>
<td>≥ 0.3937&quot;</td>
<td>x 61.81&quot;</td>
<td>x 144.49&quot; (up to 236.22&quot;)</td>
</tr>
<tr>
<td>≥ 0.5906&quot;</td>
<td>x 85.04&quot;</td>
<td>x 157.48&quot; (up to 236.22&quot;)</td>
</tr>
</tbody>
</table>

(Blanks, rings and pre-cut sizes on request.)

> 85.04" Width: Please see the product information for ACP 5080 GIANT / ACP 5080R GIANT

Tolerances
Surface Finish Ra ≤ 0.3 µm
Tolerance in Thickness +/- 0.0039"
Flatness 0.2362"-0.4724" thickness ≤ 0.0157" **
> 0.4724"-3.94" thickness ≤ 0.0051" **
Tolerance in Width for Plates 0/+0.3937"
Tolerance in Length for Plates 0/+0.5906"
Tolerance (L/W) for Sized Cuts DIN ISO 2768-m (closer on request)

* Further dimensions on request. Subject to technical change.
** Linear measured section 39.37"