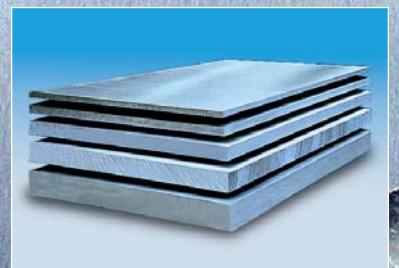
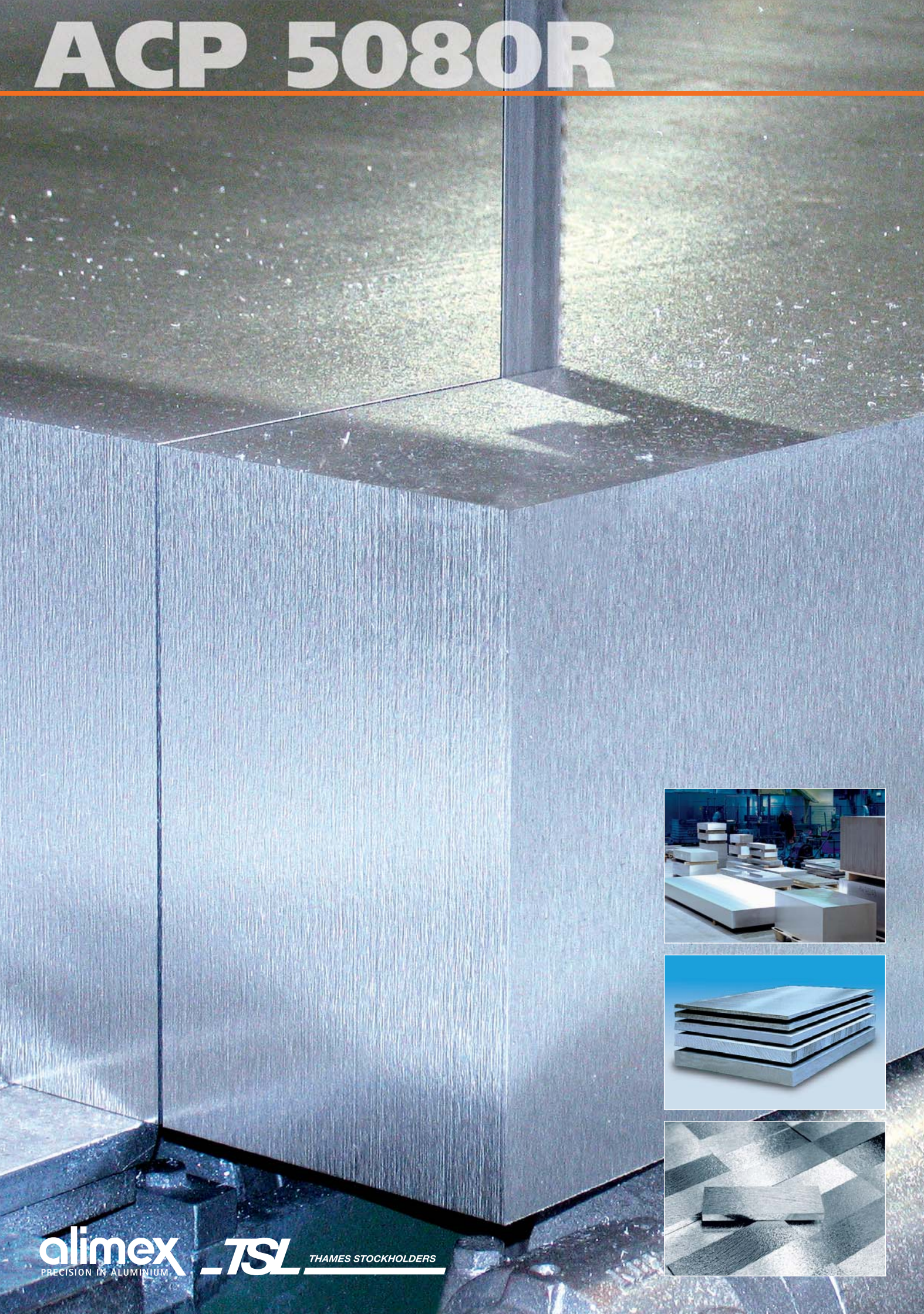


# ACP 5080R



# ACP 5080R



**alimex**  
PRECISION IN ALUMINIUM

**TSL** THAMES STOCKHOLDERS



## SAWN, STRESS RELIEVED ALUMINUM CAST MATERIAL, BLOCKS, MOULD PLATES, CUT TO SIZE PLATES - 5083-ALLOY

➤ Extraordinary sizes range availability along with superior mechanical and physical properties of ACP 5080R provide the Mould Tool Industry tooling materials solutions for the most challenging applications.

### Advantages

- Homogenised and stress relieved
- Fine-grain structure and low porosity
- Excellent dimensional stability also during extreme machining
- High tensile and yield strength
- No further annealing required
- Available stock in sizes below

- max. thickness 1000 mm
- max. width 2175 mm
- max. length 3670 mm

### Typical Processing Characteristics and Properties

- |  |                       |
|--|-----------------------|
| ■ Machinability                        | excellent             |
| ■ High speed cutting properties        | excellent             |
| ■ Electrical discharge machining (EDM) | good                  |
| ■ Anodising properties                 | good (not decorative) |
| ■ Corrosion resistance                 | excellent             |
| ■ Weldability                          | good (with AA 5183)   |
| ■ Polishing                            | excellent             |
| ■ Etching                              | good                  |
| ■ Cryogenic                            | excellent             |
| ■ Diffusion tightness                  | excellent             |
| ■ Approved for use in foods            | yes                   |

# ACP 5080R

MADE IN GERMANY

### Technical Data ACP 5080R

<b>Alloy:</b>	AA 5083 (AlMg4,5Mn0,7) according to DIN EN 573-3
<b>Temper</b>	homogenised and stress relieved

### Tolerances:

<b>Surface</b>	six sides sawn
<b>Thickness deviation</b>	0/+3 mm (smaller on request)
<b>Tol. (width + length) for cut to size plates</b>	0/+3 mm (smaller on request)

### Typical Mechanical/Physical Properties:

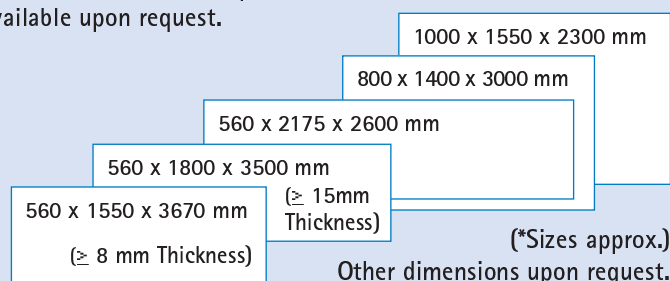
Ultimate tensile strength Rm	Max. 290 MPa (N/mm <sup>2</sup> )
Yield strength Rp .2	Max. 130 MPa (N/mm <sup>2</sup> )
Elongation A 10 %	16
Hardness HB	70
Density	2,66 g/cm <sup>3</sup>
Thermal conductivity	110 - 140 W/(mK)
Electrical conductivity	16 - 19 MS/m (m/Ω mm <sup>2</sup> )
Modulus of elasticity	~70,000 N/mm <sup>2</sup>
Coefficient of thermal expansion	24,2 * 10 <sup>-6</sup> / K

### Thickness range and sizes :

Thickness range

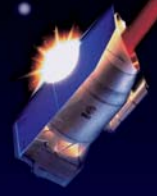
**8 mm up to 1000 mm**

Standard sizes listed below, cut to size plates along with non-standard sizes plates available upon request.



### Applications:

- |                       |                           |                     |              |               |                   |                   |                     |                          |                     |
|-----------------------|---------------------------|---------------------|--------------|---------------|-------------------|-------------------|---------------------|--------------------------|---------------------|
| Tool and Mould making | Jigs and fixtures, Gauges | Auto-motive tooling | Proto-typing | Cubing models | Vacuum technology | Standard patterns | Precision CNC-parts | Plant device engineering | General engineering |
|-----------------------|---------------------------|---------------------|--------------|---------------|-------------------|-------------------|---------------------|--------------------------|---------------------|



Alimex aluminum – application range

- Mould making
- Jigs and fixtures
- (Prototype-) tools
- Vacuum technology
- Foam moulds
- Blow Moulding tools
- Cryogenic
- Automotive tooling
- Aircraft and Space industry
- Astrophysics
- Printing machinery
- Packing machinery
- Robotics
- Rotary indexing tables
- CNC-series parts
- Circles and rings
- General engineering



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