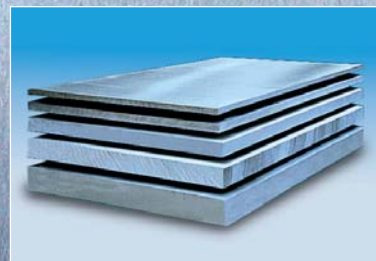
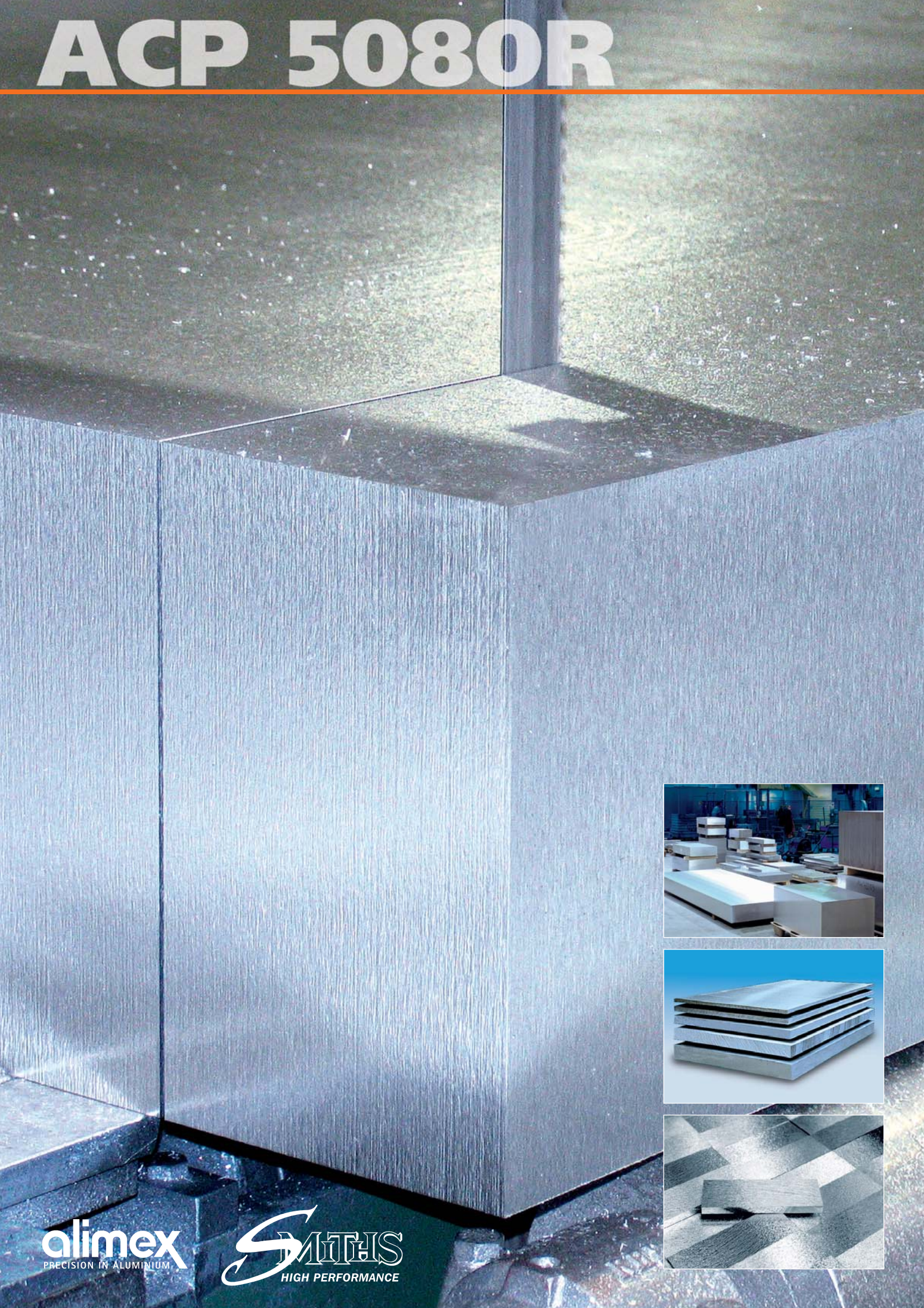


ACP 5080R

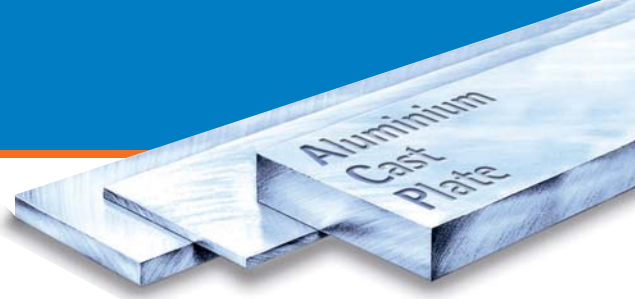


ACP 5080R



alimex
PRECISION IN ALUMINIUM

SMITHS
HIGH PERFORMANCE



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

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

Tolerances:

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

Typical Mechanical/Physical Properties:

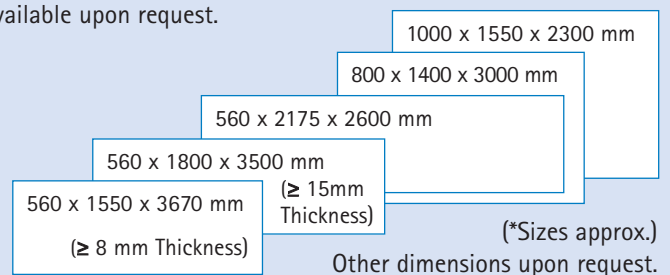
Ultimate tensile strength Rm	Max. 290 MPa (N/mm ²)
Yield strength Rp .2	Max. 130 MPa (N/mm ²)
Elongation A 10 %	16
Hardness HB	70
Density	2,66 g/cm ³
Thermal conductivity	110 - 140 W/(mK)
Electrical conductivity	16 - 19 MS/m (m/Ω mm ²)
Modulus of elasticity	~70,000 N/mm ²
Coefficient of thermal expansion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