

# ACP 5080 GIANT ACP 5080R GIANT

*Dimensions of 580 X 2800 X 5000 mm offer extended possibilities for construction And Design.*

ACP 5080 GIANT and ACP 5080R GIANT open up completely new possibilities in construction and design. With dimensions of up to 580 x 2800 x 5000 mm, alimex is the world's leading manufacturer of aluminium cast plates worldwide that can offer its customers sawn or milled plates from 15 mm to 580 mm thickness in this width and length dimension. ACP 5080 GIANT and ACP 5080R GIANT have a fine-grained and low porosity cast aluminium structure. Due to specific heat treatment over an extended period of time, the material is homogenised and thermally relaxed. The dimensional stability is optimally maintained even under extreme machining conditions.

# ACP 5080 GIANT / ACP 5080R GIANT

DIMENSIONS OF 580 X 2800 X 5000 MM OFFER EXTENDED POSSIBILITIES FOR CONSTRUCTION AND DESIGN.

Manufactured in accordance with the technical specifications of DIN SPEC 91529.

## Chemical Composition

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

## Material condition

O3 in accordance with DIN EN 515

## Material Properties

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

## Mechanical Properties

Tensile Strength $R_m$	240 - 290 MPa (N/mm <sup>2</sup> )
0.2 % Yield Strength $R_p 0.2$	110 - 130 MPa (N/mm <sup>2</sup> )
Elongation A	min. 15 %
Brinell Hardness	74 +/-5 HB

## Typical Physical Properties

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

## ACP 5080 GIANT

### Special Sizes

Thickness	≥ 15 - 220 mm
Width	up to 2800 mm
Length	up to 5000 mm

(Maximum individual weight 5 t)

### Tolerances

Surface Finish $R_a$	≤ 0.25 μm
Tolerance in Thickness	+/- 0.1 mm
Flatness	on request
Tolerance (L/W) for cut pieces:	
≤ 150 mm thickness DIN ISO 2768-m	
> 150 mm thickness	0/+5 mm
	(Linear measuring section 1 m)

## ACP 5080R GIANT

### Special Sizes

Thickness	≥ 17 - 580 mm
Width	up to 2800 mm
Length	up to 5000 mm

(Maximum individual weight 20 t)

### Tolerances

Surface	sawn on all sides
Tolerance in Thickness	0/+3 mm
Tolerance (L/W) for cut pieces:	
≤ 150 mm thickness DIN ISO 2768-m	
> 150 mm thickness	0/+5 mm
	(Linear measuring section 1 m)

Other tolerances on request.

### alimex GmbH Precision in Aluminium

Karl-Arnold-Straße 14 - 16 | 47877 Willich | Germany  
Phone: +49 (0) 2154 9177 0  
Email: [contact@alimex.de](mailto:contact@alimex.de) | [www.alimex.de](http://www.alimex.de)

### alimex Benelux B.V.

Patersstraat 19b | 5801 AT Venray | Netherlands  
Phone: +31 (0) 478 550288  
Email: [info@alimex.nl](mailto:info@alimex.nl) | [www.alimex.de](http://www.alimex.de)

### alimex ACP Asia Sdn Bhd

Block 1 no. 7, Jalan SiLC 1/4, Kawasan Perindustrian SiLC  
Iskandar Puteri 79200, Johor Malaysia  
Phone: +60 (7) 553 9827  
Email: [info@alimex.com.my](mailto:info@alimex.com.my) | [www.alimex.com.my](http://www.alimex.com.my)

### alimex Precision in Aluminum, Inc. (alimex Americas)

195 Shop Grove Drive - Unit A, Columbia, SC 29209 USA  
Phone: +1 (803) 339-0757  
Email: [sales@alimexamericas.com](mailto:sales@alimexamericas.com) | [www.alimexamericas.com](http://www.alimexamericas.com)