

# ACP 5080R

*Very good machinability with optimum dimensional stability*

Fine grain structure, low porosity and excellent machining characteristics all define the cost saving and value-added attributes of every block and plate of ACP 5080R. Outstanding industry leading material dimensional stability along with good mechanical and physical properties and an extraordinary range of sizes allow users of ACP 5080R to utilize alimex's material and knowledge expertise at its finest. Being an industry innovator and leader, alimex was the first to introduce aluminum cast plate (ACP 5080R) manufactured to AA 5083 alloy specifications.

**alimex**<sup>®</sup>  
PRECISION IN ALUMINUM

# ACP 5080R

VERY GOOD MACHINABILITY WITH OPTIMUM DIMENSIONAL STABILITY

## 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 for standard sizes

Tensile Strength $R_m$	34 - 42 ksi (~265 Mpa)
0.2 % Yield Strength $R_p 0.2$	16 - 19 ksi (~120 Mpa)
Elongation A	15 (+/- 5) %
Brinell Hardness	74 (+/- 5) HB

## Typical Physical Properties

Density	0.096 lbs / in <sup>3</sup>
Thermal Conductivity	63-81 Btu / (ft* h °F)
Electrical Conductivity	~35% IACS
Modulus of Elasticity	10* 10 <sup>3</sup> ksi
Coefficient of Thermal Expansion	13.5* 10 <sup>-6</sup> /°F

## Standard Sizes

Thickness	0.315" - 27.2"
Width	48.50" - 85.04"
Length	96.50" - 157.48"

## Special sizes

Thickness	up to 41.73"
Width	up to 110.24"
Length	up to 236.22"

(Maximum individual weight 20t per piece.)

## 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)

## Tolerances for standard sizes

Surface	sawn on all sides
Tolerance in Thickness	0/+0.118"
Tolerance in Width for Plates	-0/+0.375"
Tolerance in Length for Plates	-0/+0.375"

## alimex ACP Asia Sdn Bhd

Block 1 no. 7, Jalan SiLC 1/4, Kawasan Perindustri 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)