

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 aluminium cast plate (ACP 5080R) manufactured to AA 5083 alloy specifications.

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/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

Typical Mechanical Properties for standard sizes

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

Typical Physical Properties

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

Standard Sizes

Thickness	8 - 570 mm
Width	1520 - 2160 mm
Length	3020 - 4050 mm

Special sizes

Thickness	up to 1060 mm
Width	up to 2800 mm
Length	up to 6000 mm

(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 | www.alimex.de

alimex ACP Shanghai (China)

612A, Tower 1 German Centre

No. 88 Keyuan Road, ZhangJiang Hi-Tech Park

Pudong New District, Shanghai

201203, China

Tolerances for standard sizes

Surface	sawn on all sides
Tolerance in Thickness	0/+3 mm
Tolerance in Width for Plates	0/+10 mm
Tolerance in Length for Plates	0/+10 mm

Tolerance (L/W) for cut pieces (closer on request):

≤ 150 mm thickness	DIN ISO 2768-m
> 150 mm ≤ 570 mm thickness	0/+3 mm
> 570 mm thickness	0/+5 mm

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 | 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 | www.alimexamericas.com