

ACP 5080R

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. We take pride in every plate and block produced!

„Mouldings made from ACP 5080R are used in the manufacture of snowboards and skis.“



ACP 5080R

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

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 5 %	15
Brinell Hardness HB	70

Typical Physical Properties

Density	96* 10 ⁻³ lb/in ³
Thermal Conductivity	63 - 81 Btu/(ft* h°F)
Electrical Conductivity	~35% IACS
Modulus of Elasticity	10.3* 10 ³ ksi
Coefficient of Thermal Expansion	13.5* 10 ⁻⁶ /°F

Thickness Range & Sizes

Thickness between 0.3150" and 41.34". Plates and pre-cut sizes in every dimension depending on the block formats.

Thickness		max.Width*		max. Length*
22.44"	x	51.97"	x	118.90" (up to 236.22")
22.44"	x	59.84"	x	118.90" (up to 236.22")
22.44"	x	61.81"	x	144.49" (up to 236.22")
22.44"	x	85.04"	x	157.48" (up to 236.22")
31.50"	x	61.81"	x	157.48"
41.34"	x	66.93"	x	118.11" (up to 157.48")

(Blanks, rings and pre-cut sizes on request.)

> 85.04" Width: Please see the product information for ACP 5080 GIANT / ACP 5080R GIANT

Tolerances

Surface	sawn on all sides
Tolerance in Thickness	0/+0.1181" (closer on request)
Tolerance in Width for Plates	0/+0.3937"
Tolerance in Length for Plates	0/+0.5906"
Tolerance (L/W) for Sized Cuts	0/+0.1181" (closer on request)

* Further dimensions on request. Subject to technical change.