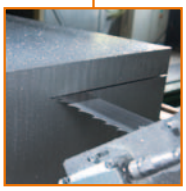
alimex®
PRECISION IN ALUMINIUM

ACP 5052 / ACP 5052R

Alimex Cast Plate 5052 is a tight tolerance surface machined plate with exceptional strong visual and aesthetic qualities after surface treatments are applied. The ultra fine homogeneous grain structure ensure that a very consistent appearance is achieved after anodizing. Alimex Cast Plate 5052 offers excellent material stability for even the most aggressive CNC milling operations. Alimex Cast Plate 5052R is the saw cut version of the alloy which is recommended for applications in larger plate dimensions or where surface machined top/bottom surfaces are not necessary.



PROPERTIES

Chemical Composition

EN AW-5052 (AlMg2,5), acc. to DIN EN 573-3

Typical Mechanical Properties

Tensile Strength R_m	180-210 MPa (N/mm^2)
0.2 % Yield Strength R_p 0.2	min. 72 MPa (N/mm^2)
Elongation A5 %	min. 26
Brinell Hardness HB	min. 50

Material Properties

Machinability	good (HSC/HPC excellent)
Weldability (TIG-MIG)	very good (with SG-AlMg3)
Anodising Properties	very good
Corrosion Resistance	very good
Polishing	good
Eroding Properties	good

Typical Physical Properties

Density	96*10^{-3} lb/cm^3
Thermal Conductivity	75-86 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

SPECIFICATIONS

ACP 5052

Thickness Range & Sizes

Plates and pre-cut sizes between 0,1969” and 3,94” are available in the following dimensions:

Thickness		max. Width*		Length*
≥ 0,1969”	x	59,84”	x	118,90”

Blanks, rings and pre-cut sizes on request.

Tolerances

Surface Finish R_a	≤ 0.3 µm
Tolerance in Thickness	+/- 0.0039”
Flatness	0,2362”-0,4724” thickness ≤ 0.0157”**
	> 0,4724”-3,94” thickness ≤ 0.0051”**
Tolerance in Width for Plates	0/+0,3937”
Tolerance in Length for Plates	0/+0,5906”
Tolerance (L/W) for Sized Cuts	DIN ISO 2768-m (closer on request)

* Further dimensions on request. Subject to technical change. ** Linear measured section 1 m

ACP 5052R

Thickness Range & Sizes

Plates and pre-cut sizes between 0,3150” and 13” thickness are available in the following dimensions:

Thickness		max. Width*		Length*
≥ 0,3150”	x	59,84”	x	118,90”

Blanks, rings and pre-cut sizes on request.

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)

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