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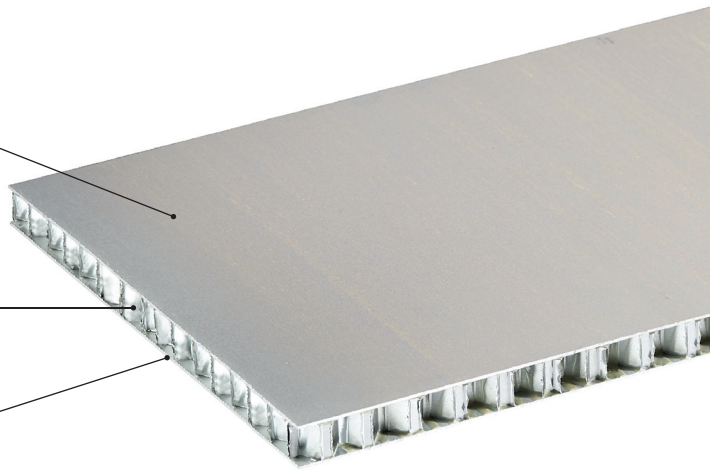
P.IVA 04102600378 CCIAA BO 0339628
ALUMINIUM AND THERMOPLASTIC HONEYCOMBS, LAMINATES, SANDWICH PANELS

ENG

Compocel® AL (FR)

ALUMINIUM SKINS
Thickness mm: 0,5 - 0,8 - 1 (standard)

CORE
Aluminium honeycomb (Alloy series 3000*) with hexagonal cells
Diameter: Ø1/4", Ø3/8", Ø1/2", Ø3/4"
Thickness Foil: from 50 to 70 microns



* To Aluminium alloy series 3000 belong: Aluminium alloy 3003, Aluminium alloy 3005, Aluminium alloy 3103, Aluminium alloy 3104.

Technical data sheet for standard panels (dimensions, materials and special finishes on request)

TECHNICAL CHARACTERISTICS OF PANEL	thickness of the panel		mm	from 3 to 100						
	panel size		mm	standard 1250 x 2500 / 1250 x 3000 / 1500 x 3000; On request up to 2000 x 7000						
	thickness' tolerance		mm	± 0,3						
	dimension's tolerance		mm	± 30						
	planarity ***		mm/m	+/-1						
	skins' thickness		mm	from 0,5 to 5,0						
	skin alluminium alloy			1000 series, 3000 series, 5000 series						
	honeycomb alluminium alloy			3000 series, 5000 series						
	thickness of honeycomb foil		µm	50 and 70						
	diameter of honeycomb		Ø = mm	from 3 to 19						
	honeycomb density		Kg/m³	from 20 to 163						
	adhesive			two-components polyurethane adhesive/thermoplastic film/ epoxy film/ two-components epoxy adhesive						
	skin characteristics			rough/primer/polyester/PVDF/ anodised						
PANEL PHISIC AND MECHANIC PERFORMANCES	type panel (some examples)		Panel Thickness mm	6	10	15	10	15	20	25
			Skin Thickness mm	0,5 + 0,5			1,0 + 1,0			
	panel weight ‡		Kg/m²	3,8	4,0	4,3	6,7	7,0	7,3	7,6
	compressive stabilised strength MPa ** ‡	ASTM C 365-365 M	Mpa	2,9						
	maximum load ** ‡	ASTM C 393 †	N	190	340	520	600	1.000	1.350	1.700
	deflection at maximum load ‡	ASTM C 393 †	mm	14	8	6	8	6	4	3
	skins E Elastic Modulus		Mpa	68.000 - 70.000						
	moment of inertia I **		mm⁴/m	7.600	22.000	52.000	40.000	98.000	181.000	288.000
	average resistance to peeling ** ‡	ASTM D1781-98 (2012)		> 280 N/76 mm or 40 Nmm/mm						
	maximum service temperature **		°C	- 40 / + 60; on request + 80 / + 100 / + 150						
	thermal expansion coefficient **		°C⁻¹	2,3 x 10^{-5}						
	fire test - naval use *	IMO MED FTP CODE 9010	Low flame spread	Pass the test for thickness from 5 to 50mm rough, primer, painted, certificate on request						

* Tested by Certificating Institute
** Tested by Internal Laboratory
*** Approximate value
† Sample dimension with 4 support points (L, W) 540x540
‡ Values for a panel with a honeycomb core of Ø6 56kg/m³ (Ø 1/4")

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Last Revised: 01/18_Rev.5

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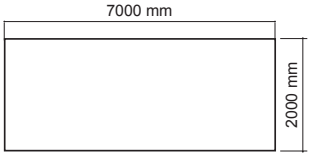
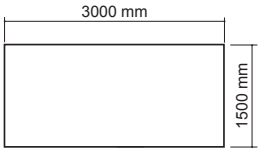
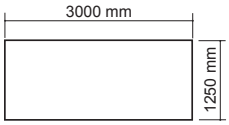
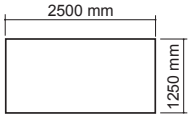
Standard dimensions (other dimensions available on request) - Dimension tolerance ±30mm



on request

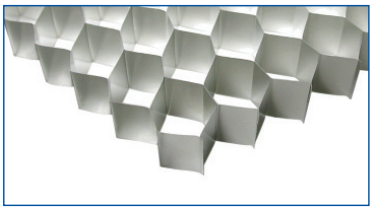






Honeycomb core's properties	50 Microns			
Type	**ALUMINIUM ALLOY 3003/3005/3103/3104**			
Ø honeycomb in mm	6	9	12	19
Ø honeycomb in inches	1/4"	3/8"	1/2"	3/4"
Density Kg/m³	56 - 59	39 - 40	29 - 30	20 - 21
Compressive stabilised strength MPa	3,0 - 3,5	1,4 - 1,95	0,8 - 0,95	0,4 - 0,6

Honeycomb core's properties	70 Microns			
Type	**ALUMINIUM ALLOY 3003/3005/3103/3104**			
Ø honeycomb in mm	6	9	12	19
Ø honeycomb in inches	1/4"	3/8"	1/2"	3/4"
Density Kg/m³	80 - 83	54	40 - 42	27 - 29
Compressive stabilised strength MPa	4,3 - 4,6	2,5 - 2,6	1,41 - 1,5	0,85 - 0,9


Aluminium honeycomb

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