

Compocel[®] AL (FR) A2

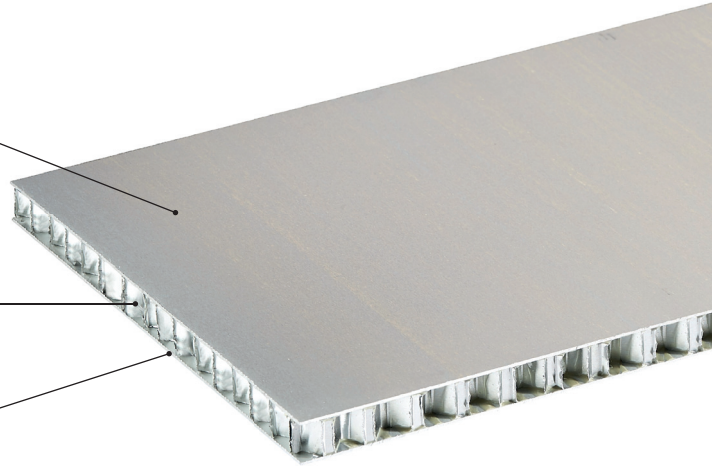
Panel's composition

ALUMINIUM SKINS

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

CORE

Aluminium honeycomb (Alloy series 3000*) with hexagonal cells
 Diameter: Ø1/8", Ø3/16"
 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		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 aluminium alloy		1000 series, 3000 series, 5000 series								
honeycomb aluminium alloy		3000 series, 5000 series								
thickness of honeycomb foil	µm	50 and 70								
diameter of honeycomb	Ø = mm	3,2 and 4,8								
honeycomb density	Kg/m ³	from 91 to 163								
adhesive		two-components polyurethane adhesive								
skin characteristics		rough/primer/polyester								
PANEL PHYSIC 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/m ²	3,7	4,0	4,5	6,6	7,1	7,5	8	
	compressive stabilised strength MPa ** ‡	ASTM C 365-365 M	Mpa	0,5±0,5						
	maximum load ** ‡	ASTM C 393 †	N	190±20	340±40	520±50	600±60	1.000±100	1.350±150	1.700±200
	deflection at maximum load ‡	ASTM C 393 †	mm	14±2	8±1	6±1	9±1	6±1	5±1	4±1
	skins E Elastic Modulus		Mpa	68.000 - 70.000						
	moment of inertia I **		mm ⁴ /m	7.600	22.000	52.000	40.000	98.000	181.000	288.000
	middle resistance to peeling ** ‡	ASTM D1781		> 180 N/76 mm or >30 Nmm/mm						
	acoustic absorption coefficient **	ISO 354 e ISO 10534								
	maximum service temperature **		°C	- 40 / + 60; up to +80°C depending on the applications						
	thermal expansion coefficient **		°C ⁻¹	2,3 x 10 ⁻⁵						
	thermal conductivity *									
fire test - naval use *	IMO MED FTP CODE 2010	Low flame spread	Pass the test for thickness from 5,0 to 50,0 mm - primer painted							

* Tested by Certificating Institute

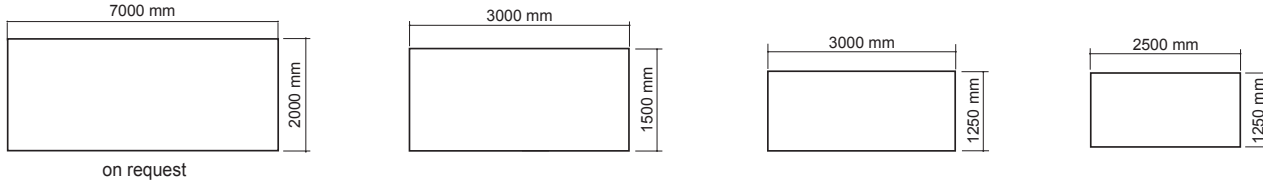
** Tested by Internal Laboratory

*** Approximate value

‡ All values refer to a panel made of aluminum honeycomb with a cell diameter 4,8 mm 91 kg/m³ and two-components polyurethane adhesive

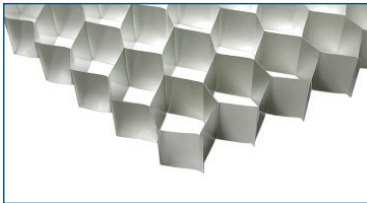
† Sample dimension with 4 support points (L, W) 540x50 mm

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



Honeycomb core's properties		50 Microns	
Type	ALUMINIUM ALLOY 3003/3005/3103/3104		
Ø honeycomb in mm	3	4,8	
Ø honeycomb in inches	1/8"	3/16"	
Density Kg/m ³	113-115	90-93	
Compressive stabilised strength MPa	6,5	5,0	

Honeycomb core's properties		70 Microns	
Type	ALUMINIUM ALLOY 3003/3005/3103/3104		
Ø honeycomb in mm	3	4,8	
Ø honeycomb in inches	1/8"	3/16"	
Density Kg/m ³	155-165	110	
Compressive stabilised strength MPa	10	7,0	



Aluminium honeycomb

Sandwich Panel Compoce[®] AL (FR) A2