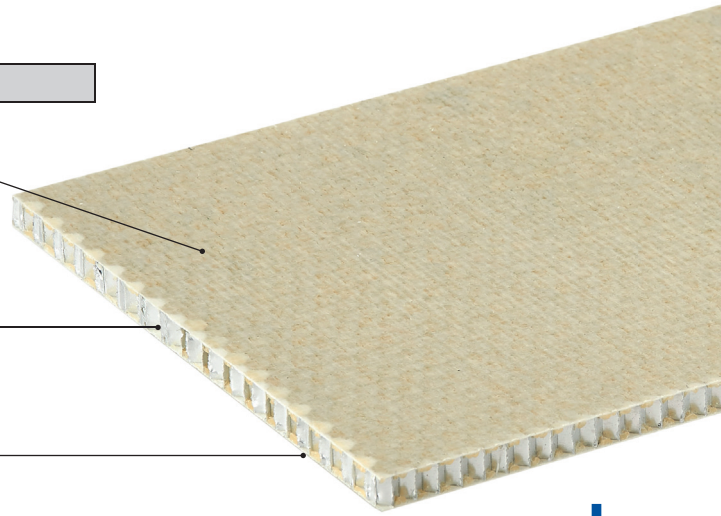


ALUSTEP® 500 LIGHT

Panel's composition

SKINS IN BIDIRECTIONAL GLASSFIBER FABRIC
490g/m² impregnated with epoxy resin

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



Thickness starting from 3 mm to 80 mm

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

** Ø3/8" on request

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

TECHNICAL CHARACTERISTICS OF PANEL		thickness of the panel		mm		from 5 to 50			
		panel size		mm		standard size 1250 x 2500 / 1550 x 3050			
thickness' tolerance		mm		±0,3					
dimension's tolerance		mm		±30					
skins' thickness		mm		0,4					
glass fiber skin				Glass fiber Plain 500 gr/m ²					
Impregnation				Epoxy resin					
honeycomb alluminium alloy				3000 / 5000 series					
thickness of honeycomb foil		µm		50 and 70					
diameter of honeycomb		Ø = mm		from 3 to 19					
honeycomb density		Kg/m ³		from 20 to 116					
adhesive				thermoplastic					
PANEL PHYSIC AND MECHANIC PERFORMANCES		type panel (some examples)		mm		5 10 15 20 25 30 35			
		panel weight ‡		Kg/m ²		2,7±0,2 3,0±0,2 3,3±0,2 3,5±0,2 3,8±0,2 4,1±0,2 4,4±0,2			
		compressive stabilised strength MPa ** ‡		ASTM C 365-365 M		Mpa		2,9	
		maximum load ** ‡		ASTM C 393 †		N		180 400 600 800 1000 1200 1400	
		deflection at maximum load ‡		ASTM C 393 †		mm		55 28 18 13 11 9 8	
		skins E Elastic Modulus **				Mpa		28'000±1000	
		moment of inertia I **				mm ⁴ /m		4.000 18.400 40.000 76.000 120.000 174.000 240.000	
		middle resistance to peeling ** ‡		ASTM D1781				>700 N/76 mm or >120 Nmm/mm	
		maximum service temperature **				°C		- 40/ + 70	
thermal expansion coefficient **				°C ⁻¹		1,5 * 10 ⁻⁵ / 1,5 mm for ΔT 100 °C for 1 meter length			

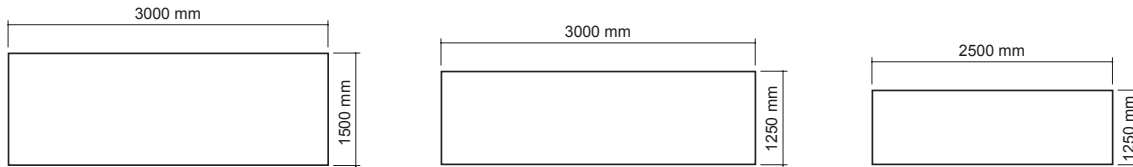
* Tested by Certifying Institute

** Tested by Internal Laboratory

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

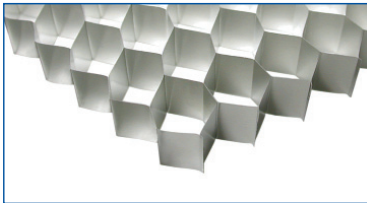
‡ All values refer to a panel made of aluminum honeycomb with a cell diameter 6 mm 56 kg/m³ and two-components polyurethane adhesive

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



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/m ³	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/m ³	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