

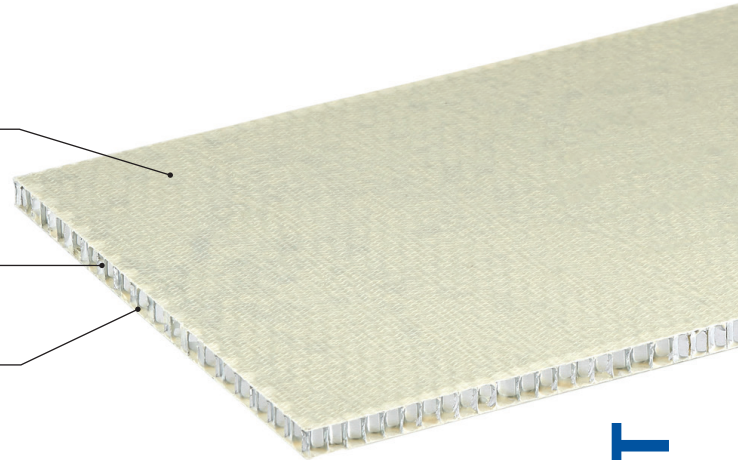
ALUSTEP® 500 LIGHT

Panel's composition

SKINS IN BIDIRECTIONAL GLASSFIBER FABRIC
500 g/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 4 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 1250x2500/1500x3000		On request up to 1500 x 4000													
thickness' tolerance		mm				±0,3															
dimension's tolerance		mm				± 30															
skins' thickness		mm				0,5															
glass fiber skin						Glass fiber Plain 500 gr / m ² 600 tex															
honeycomb aluminium 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/m ³				from 20 to 116															
adhesive for aluminum honeycomb						Epoxy Resin															
PANEL PHYSIC AND MECHANIC PERFORMANCES		type panel (some examples)		mm		5		10		15		20		25		30		35			
		panel weight ‡		Kg/m ²		2,0±0,2		2,3±0,2		2,6±0,2		2,9±0,2		3,2±0,2		3,5±0,2		3,8±0,2			
		compressive stabilised strength MPa ** ‡		ASTM C 365-365 M		Mpa														2,9±0,3	
		maximum load ** ‡		ASTM C 393 †		N		180		400		620		840		1080		1280		1500	
		deflection at maximum load ‡		ASTM C 393 †		mm		49±6		25±3		16±2		12±2		10±1		8±1		7±1	
		skins E Elastic Modulus **				Mpa														26'000±2'000	
		moment of inertia I **				mm ⁴ /m		5'080		22'580		52'500		95'000		150'000		217'580		297'580	
		middle resistance to peeling ** ‡		ASTM D1781-98 (2012)																>500 N/76 mm or >50 Nmm/mm	
		maximum service temperature **				°C														- 50/ + 90	
thermal expansion coefficient **				°C ⁻¹														1,5*10 ⁻⁵			

* Tested by Certifying Institute

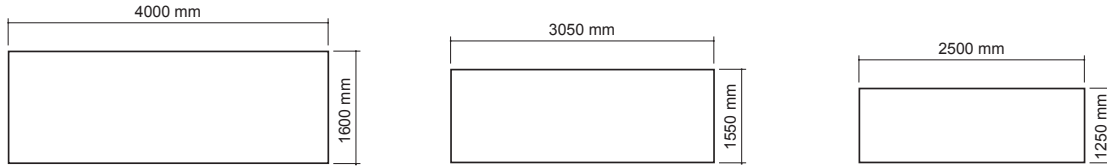
** Tested by Internal Laboratory

*** Approximate value

† Sample dimension with 4 support points (L, W) 540x540

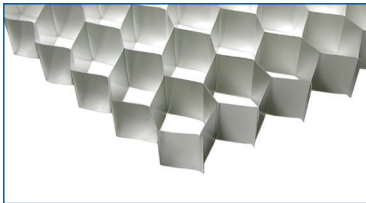
‡ All values refer to a panel made of aluminum honeycomb with a cell diameter 6 mm 56 kg/m³ and epoxy adhesive

Standard dimensions (other dimensions available on request) - Dimension tolerance $\pm 30\text{mm}$



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

Honeycomb core's properties	70 Microns	
Type	ALUMINIUM ALLOY 3003/3005/3103/3104	
Ø honeycomb in mm	6	9
Ø honeycomb in inches	1/4"	3/8"
Density Kg/m ³	80 - 83	54
Compressive stabilised strength MPa	4,3 - 4,6	2,5 - 2,6



Aluminium honeycomb

Sandwich Panel ALUSTEP® 500 LIGHT