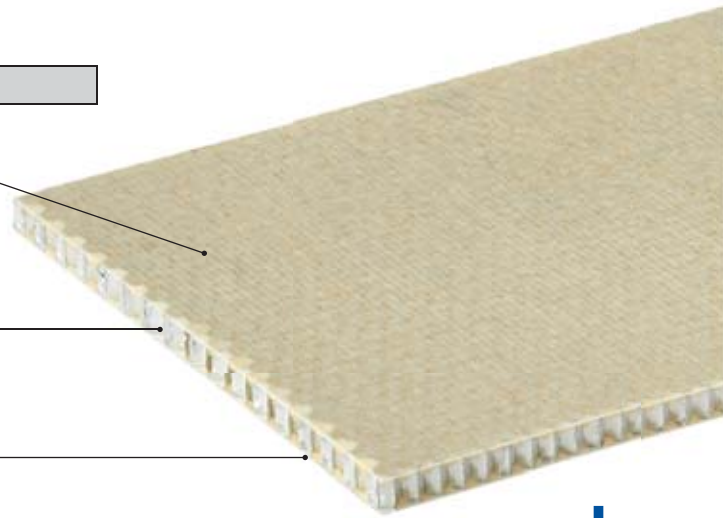


## ALUSTEP® 500 LIGHT

### Panel's composition

**SKINS IN BIDIRECTIONAL GLASSFIBER FABRIC**  
490g/m<sup>2</sup> 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								
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 <sup>2</sup>							
	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 <sup>3</sup>	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 <sup>2</sup>	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 <sup>4</sup> /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 <sup>-1</sup>	1,5-3,5*10 <sup>-5</sup>						

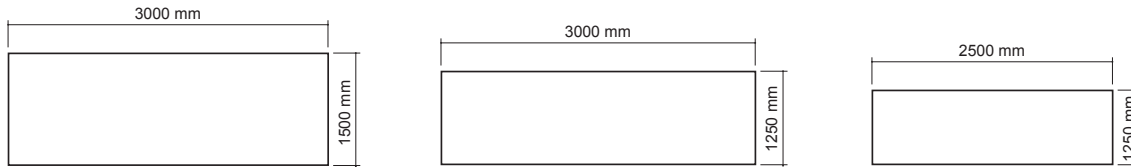
\* Tested by Certifying Institute

\*\* Tested by Internal Laboratory

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

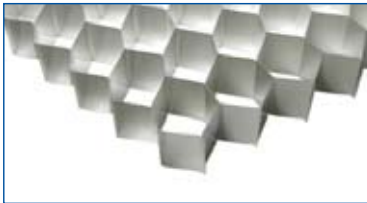
‡ All values refer to a panel made of aluminum honeycomb with a cell diameter 6 mm 56 kg/m<sup>3</sup> and two-components polyurethane adhesive

Standard dimensions (other dimensions available on request) - Dimension tolerance  $\pm 30$ 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 <sup>3</sup>	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 <sup>3</sup>	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