

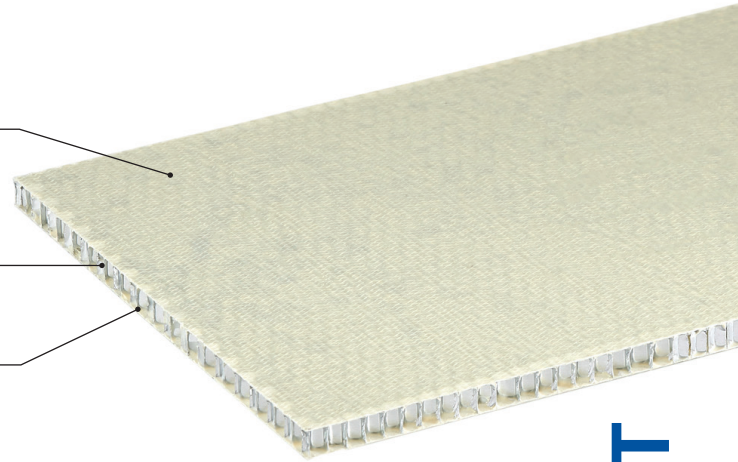
## ALUSTEP® 500 LIGHT

### Panel's composition

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

\* Tested by Certifying Institute

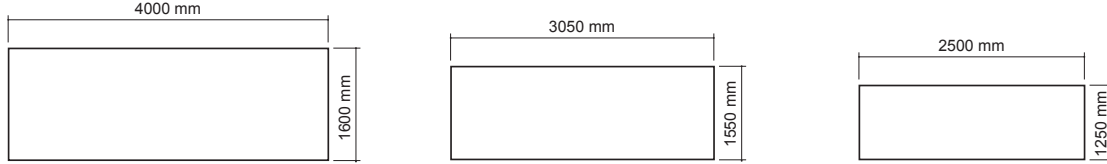
\*\* Tested by Internal Laboratory

\*\*\* Approximate value

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

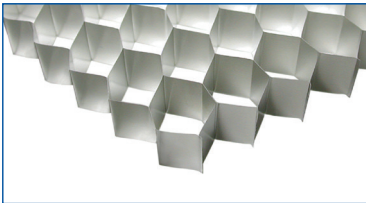
‡ All values refer to a panel made of aluminum honeycomb with a cell diameter 6 mm 56 kg/m<sup>3</sup> and epoxy adhesive

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	6	9	
Ø honeycomb in inches	1/4"	3/8"	
Density Kg/m <sup>3</sup>	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 <sup>3</sup>	80 - 83	54	
Compressive stabilised strength MPa	4,3 - 4,6	2,5 - 2,6	



Aluminium honeycomb

Sandwich Panel ALUSTEP<sup>®</sup> 500 LIGHT