

ALUSTEP® 500 LIGHT

Panel's composition

SKIN IN GLASSFIBRE

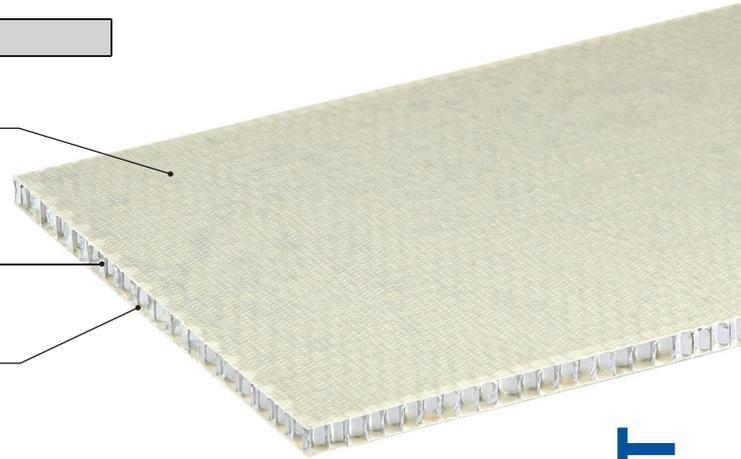
500 g/m² impregnated with epoxy resin

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

* Serie 5000 on demand

** Ø3/8" on request

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

TECHNICAL CHARACTERISTICS OF PANEL											
Panel thickness	mm	from 5 to 50									
Panel size	mm	Standard 1250x2500/1500x3000 On request up to 1500 x 4000									
Thickness tolerance	mm	±0,3									
Dimension tolerance	mm	± 30									
Skins thickness	mm	0,5									
Skin		Glassfibre 500 gr / m ² 600 tex									
Honeycomb aluminium alloy		3000 series / 5000 series									
Thickness of honeycomb foil	µm	50 and 70									
Honeycomb diameter	Ø = mm	from 3 to 19									
Honeycomb density	Kg/m ³	from 20 to 116									
Adhesive		Epoxy Resin									
PANEL PHYSIC AND MECHANIC PERFORMANCES		Panel Thickness (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

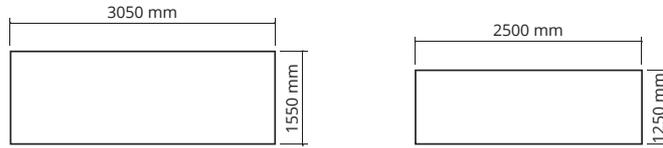
** Tested by Internal Laboratory

*** Approximate value

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

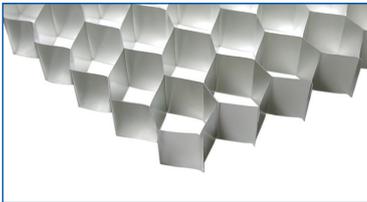
‡ All values refer to a panel made of aluminum honeycomb with a cell diameter 6 mm 56 kg/m³ and epoxy adhesive

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