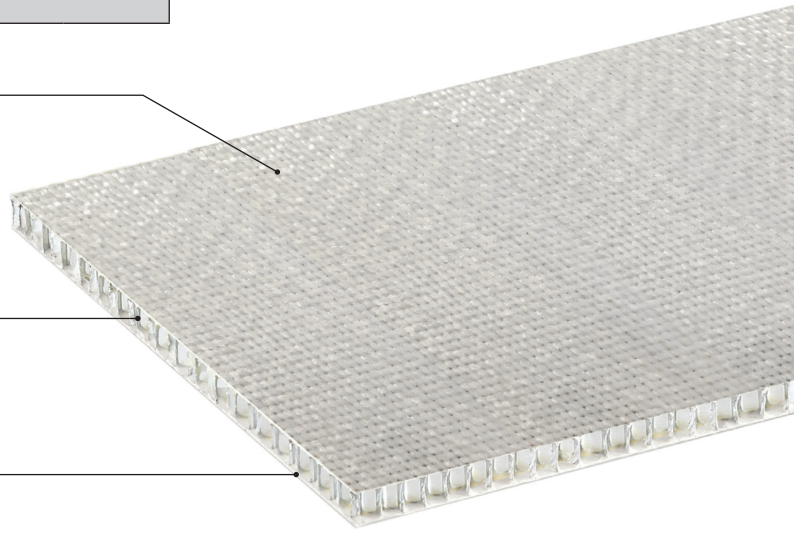


ALUSTEP® 500 SL

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		total thickness		mm		from 5 to 50						
		panel size	mm	standard 1250 x 2500 / 1500 x 3000 On request up to 1550 x 3050								
thickness tolerance	mm	±0,3										
dimensions tolerance	mm	± 30										
skins thickness	mm	0,04										
glass fiber skin		Glass fiber Plain 500 gr/m ²										
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	1,9±0,2	2,2±0,2	2,5±0,2	2,8±0,2	3,1±0,2	3,3±0,2	3,5±0,2		
		compressive stabilised strength ** ‡	ASTM C 365-365 M	Mpa	2,9±0,3							
		maximum load‡	ASTM C 393†	N	130	270	420	570	720	850	1000	
		deflection at maximum load‡	ASTM C 393†	mm	42±6	20±3	14±2	11±2	8±1	7±1	6±1	
		skins E Elastic Modulus**		Mpa	26'000±2'000							
		moment of inertia I **		mm ⁴ /m	4'200	18'400	42'600	76'800	121'000	175'400	239'940	
		middle resistance to peeling ** ‡	ASTM D1781-98 (2012)	mm ⁴ /m	> 500 N/76 mm or >55 Nmm/mm							
		maximum service temperature **		°C	- 50/ +90							
thermal expansion coefficient ***		°C ⁻¹	1,5 * 10 ⁻⁵ / 1,5 mm for ΔT 100 °C for 1 meter length									

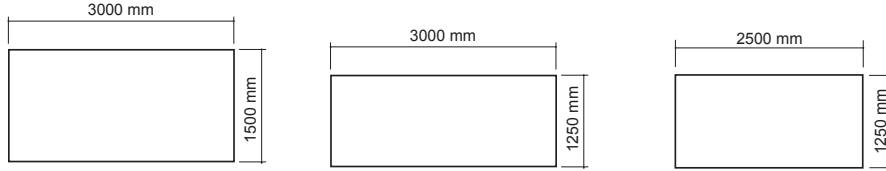
* Tested by Internal Laboratory

** Tested by external Laboratory

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

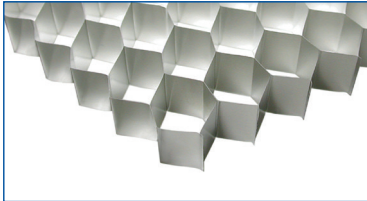
† Sample dimension with 4 support points (L, W) 540x540 ; distance among the lower points 500mm.

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

CONFORM TO AMERICAN STANDARDS				
ASTM C67-M18	ASTM E72-15	ASTM C297 M-16	ASTM E84-17	TAS 201 TAS 203
Water Absorption	Strength-Transverse load	Flatwise tensile strength	Flamespread	Impact and Cyclic Wind Pressure