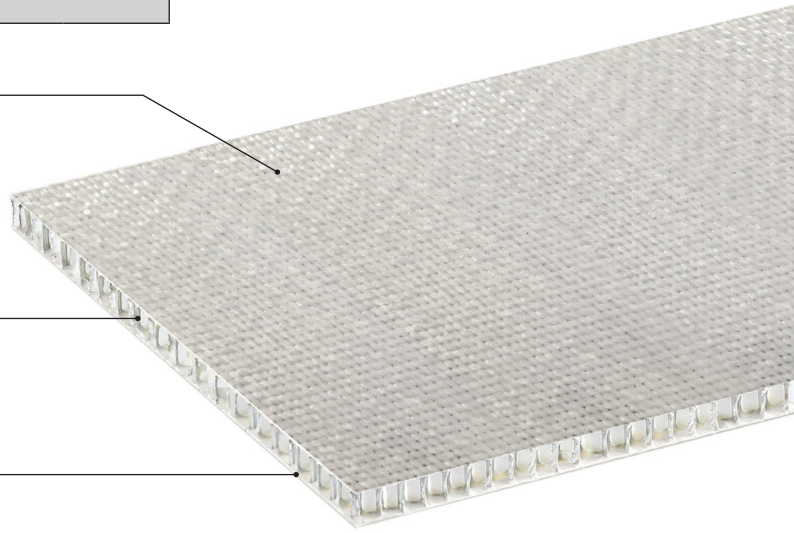


ALUSTEP® 500 SL

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		Technical data sheet for standard panels (dimensions, materials and special finishes on request)									
		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	0,4								
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								

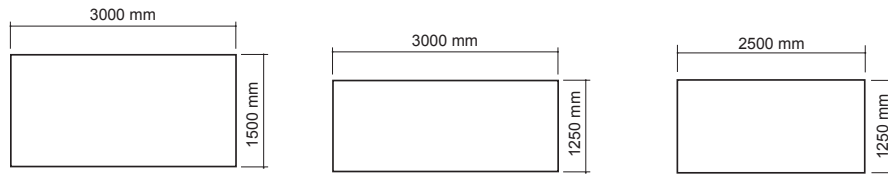
* Tested by Internal Laboratory

** 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

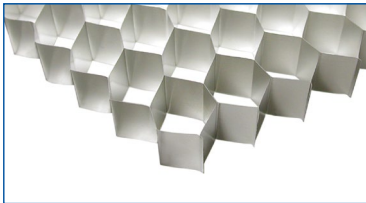
† Sample dimension with 4 support points (L, W) 540x540 ; distance among the lower points 500mm.

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



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