

ALUSTEP® 500 SL

Panel's composition

SKIN IN GLASSFIBRE

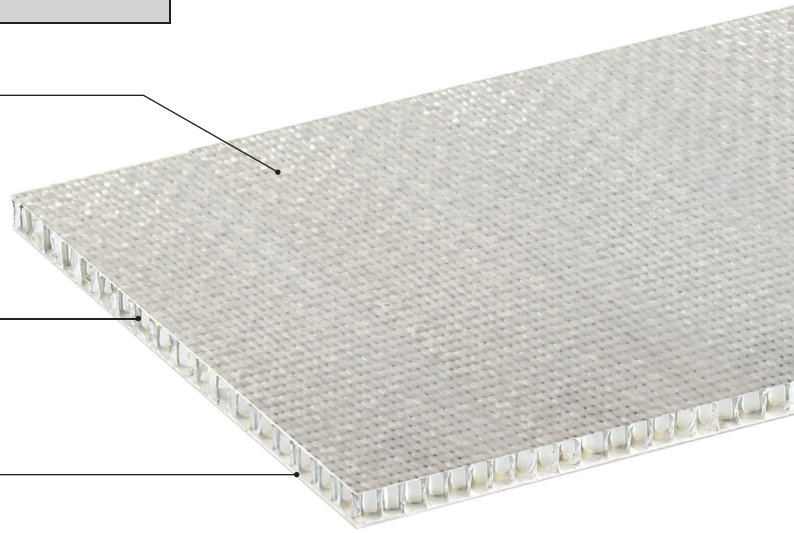
490g/m² impregnated with epoxy resin

CORE

Aluminium honeycomb (Alloy series 3000*) with hexagonal cells

Diameter: Ø1/4", Ø3/8" **

Thickness Foil: from 50 to 70 microns



Thickness starting from 3,5 mm to 50 mm

* Serie 5000 on demand

** Ø3/8" on request

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

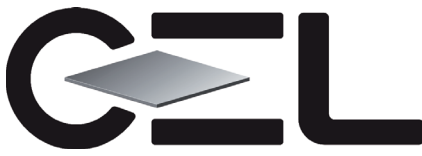
TECHNICAL CHARACTERISTICS OF PANEL		Panel thickness		from 3,5 to 50							
		Panel size	mm	Standard 1250 x 2500 / 1500 x 3000 On request up to 1550 x 3050							
Thickness tolerance	mm	±0,3									
Dimension tolerance	mm	± 30									
Skins thickness	mm	0,4									
Skin		Glassfibre 500 gr/m ²									
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	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 MPa ** ‡	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)		> 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.

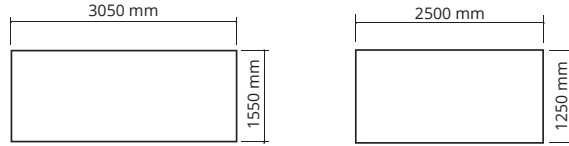


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ALUMINIUM AND THERMOPLASTIC HONEYCOMBS, LAMINATES, SANDWICH PANELS

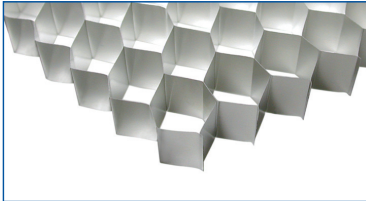
ENG

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

Sandwich Panel ALUSTEP® 500 SL



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Last Revised: 10/23_Rev.13