

ALUSTEP® 500

Panel's composition

SKIN IN GLASSFIBRE

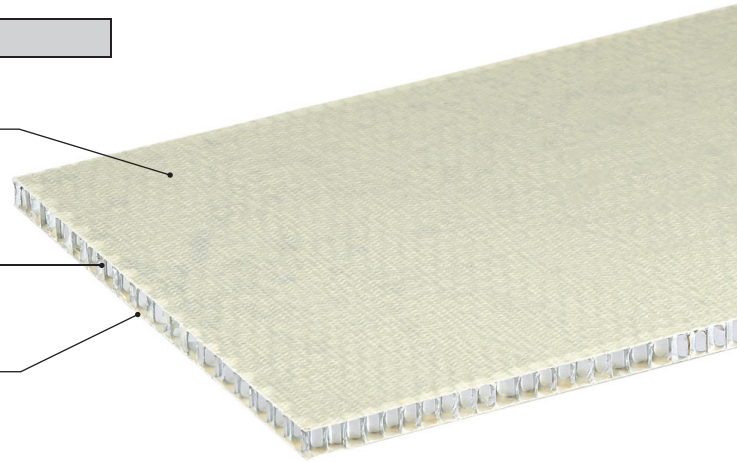
500 g/m² impregnated with epoxy resin

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 1250 x 2500 / 1550 x 3050 On request up to 2000 x 3200								
Thickness tolerance		mm		± 0,4										
Dimension tolerance		mm		± 30										
Skins thickness		mm		0,4										
Skin				Glassfibre 500 gr / m ² 600 tex										
Honeycomb alluminium 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 163										
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		2,5±0,2	2,7±0,2	3,0±0,2	3,3±0,2	3,6±0,2	3,8±0,2	4,1±0,2		
		Compressive stabilised strength MPa ** ‡		ASTM C 365-365 M		Mpa		2,9 ± 0,3						
		Maximum load ** ‡		ASTM C 393 †		N		180±20	400±40	600±60	800±80	1000±100	1200±100	1400±100
		Deflection at maximum load ‡		ASTM C 393 †		mm		55±6	28±3	18±2	13±2	11±1	9±1	8±1
		Skins E Elastic Modulus **				Mpa		28'000±1'000						
		Moment of inertia I **				mm ⁴ /m		4.000	18.400	40.000	76.000	120.000	174.000	240.000
		Middle resistance to peeling ** ‡		ASTM D1781-98 (2012)				> 500 N/76 mm or >60 Nmm/mm						
		Load distributed on a 1000 x 1000 x 20mm supported on 2 sides				kg		300						
		Marble/Panel Bonding Test according to ASTM D 4501						suitable bonding, the substrate (stone) breaks down						
Deflection recorded on 1000 x 1000 x 20mm panels supported on 2 sides under 300 kg weight distributed on the whole panel surface				mm		18								
Maximum service temperature **				°C		- 40 / + 70 ; on request + 85								
Thermal expansion coefficient **				°C ⁻¹		1,5 * 10 ⁻⁵ / 1,5 mm for ΔT 100 °C for 1 meter length								

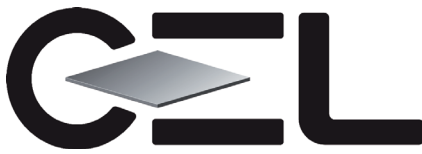
* Tested by Certifying Institute

** 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

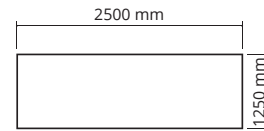
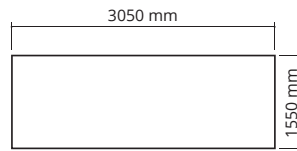
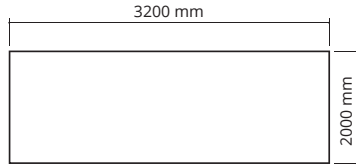


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ALUMINIUM AND THERMOPLASTIC HONEYCOMBS, LAMINATES, SANDWICH PANELS

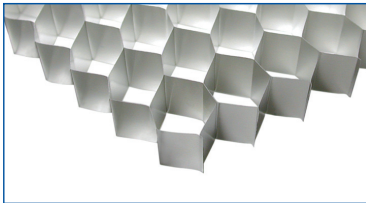
ENG

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

Sandwich Panel ALUSTEP® 500

Last Revised: 10/23_Rev.7