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P.IVA 04102600378 CCIAA BO 0339628
ALUMINIUM AND THERMOPLASTIC HONEYCOMBS, LAMINATES, SANDWICH PANELS

ENG

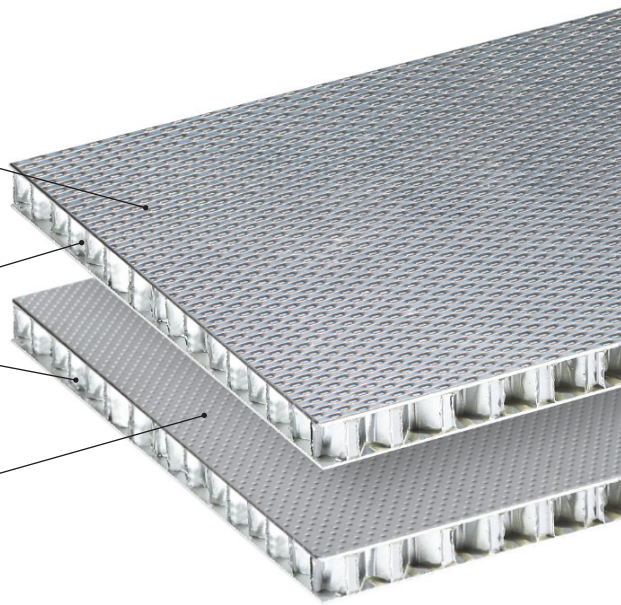
Compocel® SA

Panel's composition

STRETCHED ALUMINIUM SKIN
Thickness mm: 1

CORE
Aluminium honeycomb (Alloy series 3000*) with hexagonal cells
Diameter: Ø3/8", Ø1/2", Ø3/4"
Thickness Foil: from 50 to 70 microns

MICROPERFORATED ALUMINIUM SKIN
Thickness mm: 1



* Alloy series 5000 on request

Technical data sheet for standard panels (dimensions, materials and special finishes on request)						
TECHNICAL CHARACTERISTICS OF PANEL	Panel size		mm	Standard 1000 x 2000 / 1250 x 2500 On request different sizes		
	Thickness tolerance		mm	± 0,3		
	Dimension tolerance		mm	± 5		
	Planarity ***		mm/m	+/-1		
	Skins thickness		mm	Standard 1,0 – On request 0,8 / 0,5 back side		
	Skin			1000 series, 3000 series, 5000 series		
	Honeycomb alluminium alloy			3000 series, 5000 series		
	Thickness of honeycomb foil		µm	50 and 70		
	Honeycomb diameter		Ø = mm	from 9 to 19		
	Honeycomb density		Kg/m³	from 20 to 163		
	Adhesive			Hotmelt reactive polyurethane adhesive		
	Skin characteristics			Perforated / Stretched - Raw/polyester/PVDF/anodized		
PANEL PHISIC AND MECHANIC PERFORMANCES	Type panel (some examples)		Panel Thickness mm	13	20	40
			Skin Thickness mm	1,0 + 1,0		
	Panel weight ‡		Kg/m²	5,1	5,6	6,8
	Compressive stabilised strength MPa ** ‡	ASTM C 365-365 M	Mpa	0,7		
	Maximum load ** ‡	ASTM C 393 †	N	700	1.200	1.700
	Deflection at maximum load ‡	ASTM C 393 †	mm	6	4	1,5
	Skins E Elastic Modulus		Mpa	68.000 - 70.000		
	Moment of inertia I **		mm⁴/m	72.000	181.000	760.000
	Average resistance to peeling ** ‡	ASTM D1781-98 (2012)		280 N/76 mm or 40 Nmm/mm		
	Maximum service temperature **		°C	- 40 + 80		
	Thermal expansion coefficient **		°C⁻¹	2,3 x 10^{-5}		

** Theoretical values
*** Approximate value
† Sample dimension with 4 support points (L, W) 540x50mm; distance among the lower points 500mm, distance among the upper points 250mm
‡ Values for a panel with a honeycomb core of Ø12 29kg/m³ (Ø 1/2")

LIABILITY DISCLAIMER: The above data are to the best of our knowledge correct and are intended to give information about our products and their potential applications. No warranty is given or implied in respect of certain properties of the products or their suitability for a particular application. We reserve the right for technical changes without further notice. We guarantee impeccable product quality under our terms of sale.

Sandwich Panel COMPOCEL® SA

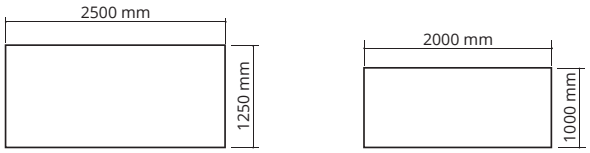
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Standard dimensions (other dimensions available on request) - Dimension tolerance ±30mm

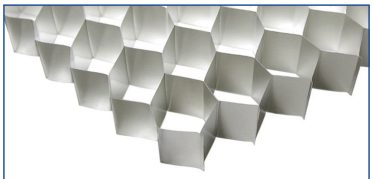


PROCESSING METHODS



Cutting to size | Milling | Drilling | Joining | Cut to shape | Panel folding | Panel edgings | Inserts | Painting | Veneering

Honeycomb core's properties	50 Microns		
Type	ALUMINIUM ALLOY 3003/3005/3103/3104		
Ø honeycomb in mm	9	12	19
Ø honeycomb in inches	3/8"	1/2"	3/4"
Density Kg/m³	39 - 40	29 - 30	20 - 21
Compressive stabilised strength MPa	1,4 - 1,95	0,8 - 0,95	0,4 - 0,6

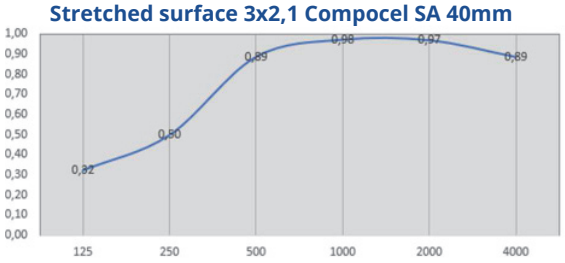

Aluminium honeycomb

Honeycomb core's properties	70 Microns		
Type	ALUMINIUM ALLOY 3003/3005/3103/3104		
Ø honeycomb in mm	9	12	19
Ø honeycomb in inches	3/8"	1/2"	3/4"
Density Kg/m³	54	40 - 42	27 - 29
Compressive stabilised strength MPa	2,5 - 2,6	1,41 - 1,5	0,85 - 0,9

Example of perforated sheets

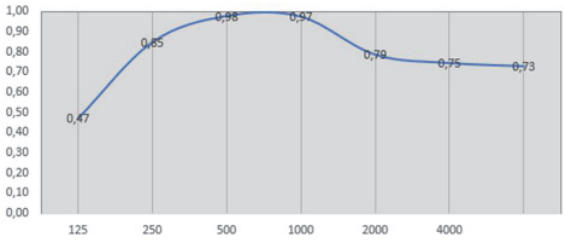


Stretched surface 3x2,1 Compocel SA 40mm



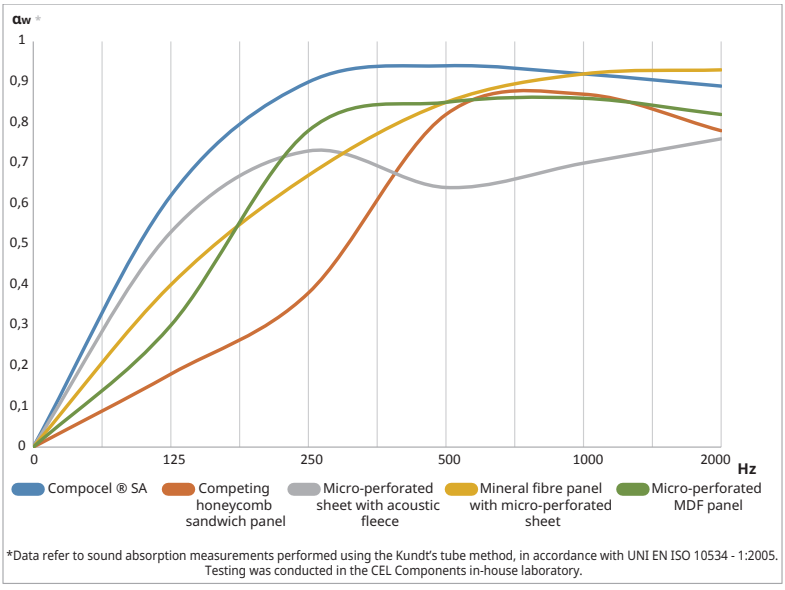
Sound absorption test** (Kundt method)
according to UNI EN ISO 10534-1-2005 : αw=0,90 (MH)

Perforated surface d2 p4 Compocel SA 40mm



Sound absorption test** (Kundt method) according to
according to UNI EN ISO 10534-1-2005 : αw=0,86 (LM)

Sound absorption performance across major acoustic panel technologies



*Data refer to sound absorption measurements performed using the Kundt's tube method, in accordance with UNI EN ISO 10534 - 1:2005. Testing was conducted in the CEL Components in-house laboratory.

** Tested by internal laboratory

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