



PRODUCT DATA SHEET

ALCOPAN™ Sandwich Panels with Aluminium Honeycomb

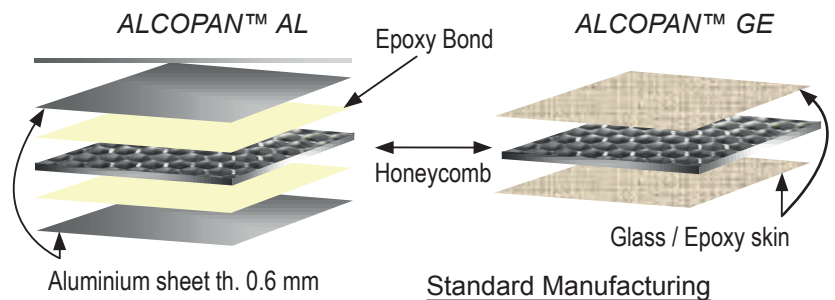
THE GILL CORPORATION - FRANCE

The Gill Corporation-France's ALCOPAN™ sandwich panels with commercial grade aluminium honeycomb core, are structural self-supporting panels used in various applications, from face cladding to machine tool cowling, as well as in railways, shipbuilding and partition walls in the construction industry.

ALCOPAN™ provides technical solutions where wood, steel or plastic cores will not meet the demands of the application. The aluminium honeycomb sandwich panels offer excellent weight to stiffness ratio that will meet the most demanding industrial requirements.

DESCRIPTION

- Core: ALPHEX™ Commercial Grade Aluminium Honeycomb
- Cell 6 mm; density 69 kg / m³
- Compression resistance: 34 bars
- Thickness upon request from 4 to 150 mm
- 3 standard thicknesses: 12.5, 25, 50 mm
- Standard dimensions: 2500 x 1250 mm
- Any other dimensions or core definition upon request



ALCOPAN™ VARIANTS

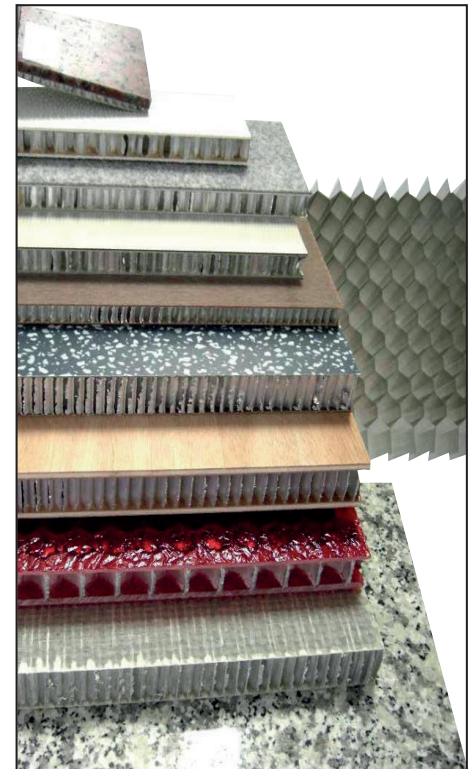
ALCOPAN™ variants are obtained by changing any of the following elements:

- Skins or facings: aluminium in different thicknesses, stainless steel, glass-epoxy fibre and decorative laminates
- Core: different types of honeycomb, foam and wood
- Bonding system
- Dimensions
- Any element customised to specifications and customer needs: mechanical data, aesthetics and cost target

Thanks to our engineering, analyses and laboratory capabilities, we are able to study and customise the sandwich panels and spare parts specific to your needs, and we can test them. From basic sandwich panels, we can also provide panels with: inserts, edging, machining and any additional task to a finished part.

PRODUCTS BASED ON SANDWICH PANEL TECHNOLOGY

- Panels and parts for railways and shipbuilding industries: partition walls, flooring and ceilings
- Building: face cladding, inside partition walls (office partitions and lifts)
- Shock absorbers in railway (train nose protection), road safety, automobile crash tests and crash testing laboratories
- Various machining of components and tooling for specialised and customised vehicles



OUR KNOW-HOWS

- Unit, short run and large series production since 1985
- Structural bonding of composite materials of different types (aluminium / stainless steel / HPL)
- Selection of various core materials: honeycombs, foams and wood
- Processing of composite materials



TECHNICAL DATA: ALCOPAN™ STANDARD PANELS

ALCOPAN™ AL

- Facings: aluminium skins 0,6 mm thick per face with primercoating enabling bonding or painting
- Core: ALPHEX™ 6-69kg/m³
- Fire resistance performance M1-F0 (French standard, PV LNE)

Thickness (mm)	Panel Weight 2500 mm x 1250 mm (KG)	Stiffness EI* (KN x cm ² /m)	Weight (KG/m ²)
12,5	14,7	33 400	4,7
25	16,9	140 300	5,4
50	22,8	575 000	7,3

COMPARISON WITH

- Aluminium sheet with equivalent stiffness

Weight (KG/m ²)	Weight Reduction Alcopan / Alu plate (in %)	Thickness (mm)
22	-79%	8
35	-85%	13
57	-87%	21

ALCOPAN™ GE

- Fiberglass / epoxy resin skins
- Core: ALPHEX™ 6-69kg/m³
- Peel-ply option upon request

Thickness (mm)	Panel Weight 2500 mm x 1250 mm (KG)	Stiffness EI* (KN x cm ² /m)	Weight (KG/m ²)
12,5	9,7	6 700	3,1
25	12,2	28 000	3,9
50	17,5	110 000	5,6

COMPARISON WITH

- Aluminium sheet with equivalent stiffness

Weight (KG/m ²)	Weight Reduction Alcopan / Alu plate (in %)	Thickness (mm)
14	-78%	5
22	-82%	8
35	-84%	13

*Stiffness EI equivalent to 1m wide panel

Technical data, from laboratory results, are provided for information purposes only and do not constitute a guarantee. Users must ensure, with our support, that the product is suitable for its intended use.



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All recommendations, statements, values and technical data herein are based on tests The Gill Corporation believes to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. Users shall rely on their own information and tests to determine suitability of the product for the intended use and assume all risks and liability resulting from their use of the product. The Gill Corporation's sole responsibility shall be to replace that portion of the product that proves to be defective. The Gill Corporation will not be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements not contained in a written agreement signed by an officer of The Gill Corporation shall not be binding upon The Gill Corporation.