Featherlight® COMPOSITE PANELS / Non-structural

Featherlight Marine Grade panels have been specifically developed to optimise weight and dimensional stability for non-structural interior applications.

Featherlight panels are 1200mm x 2400mm, and are manufactured with a choice of phenolic-impregnated paper honeycomb *, PVC X-linked foam or rigid end-grain balsa cores to provide superior levels of stiffness, and thermal and acoustical insulating properties.

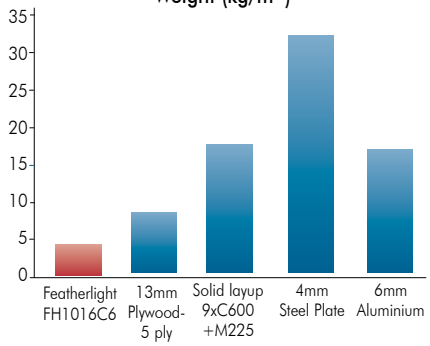
The panels are finished with either hardwood veneers or peel-plied, reinforced epoxy laminates. The timber faced panels are supplied with a sanded, calibrated surface that is ready for decorative veneer application, painting or secondary bonding with decorative laminates.

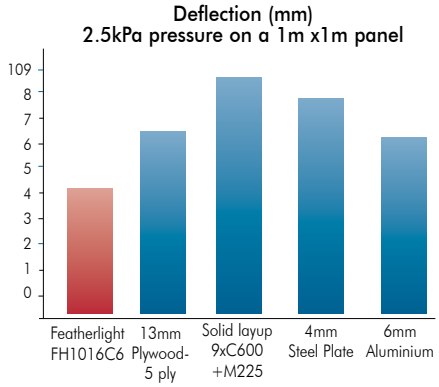
Featherlight panels are ideally suited for the construction of yacht cabinetry, non-structural bulkheads, and general fitout, and curved surfaces are achieved without effort by simply kerf-cutting the inside skin.

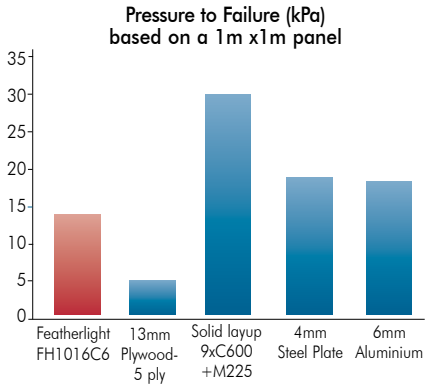
Non marine applications include, rail walls, roof panels, interior partitions and modules, and architectural room partitions and other interior structures requiring thermal & acoustical insulating properties, curtain walls in new construction, and fascia panels for re-modeling older exteriors.

**phenolic paper honeycomb core will retain 40% of its strength, if it gets wet, and when it dries, it returns to 100% strength. In general, any damage to a cored panel should be repaired as quickly as possible.*

MATERIAL COMPARISONS	Weight (kg/m2)	Deflection (mm)	Pressure to Failure(kPa)
Featherlight FH1016C6	4.4	5.1	14
13mm Plywood - 5 ply	7.6	7.4	5
Solid Layup	16.9	9.5	30
4mm Steel Plate	31.4	8.6	19
6mm Aluminium Plate	16.2	7.1	18







FP - paper-honeycomb core (54kg/m3) with hardwood veneer on both sides		
Order Code	Overall Thickness	Nominal Weight kg/m2
FP009	9mm	3.6
FP013	13mm	3.8
FP016	16mm	4.0
FP019	19mm	4.2

FB - rigid end-grain balsa core (150kg/m3) with hardwood veneer on both sides		
FB009	9mm	3.4
FB013	13mm	4.0
FB016	16mm	4.4
FB019	19mm	4.9

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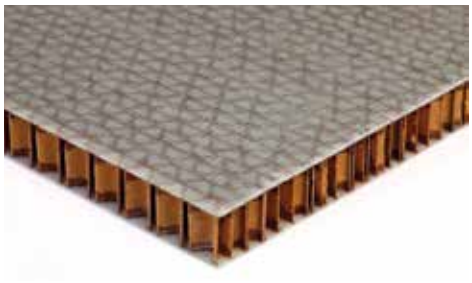
FX - PVC foam core (60kg/m^3) with hardwood veneer on both sides		
Order Code	Overall Thickness	Nominal Weight kg/m^2
FX009	9mm	2.8
FX013	13mm	3.0
FX016	16mm	3.2
FX019	19mm	3.4

FH - paper-honeycomb core (54kg/m^3) with 1 layer of 600g biaxial E-glass on both sides		
FH1009C6	9 mm	4.0
FH1013C6	13 mm	4.2
FH1016C6	16 mm	4.4
FH1019C6	19 mm	4.6



FF - PVC foam core (60kg/m^3) with 1 layer of 600g biaxial E-glass on both sides		
FF1009C6	9 mm	2.9
FF1013C6	13 mm	3.1
FF1016C6	16 mm	3.3
FF1019C6	19 mm	3.5

Panel size 1200mm x 2400mm Other dimensions and laminates available upon request.

PROCESSING E-GLASS LAMINATES

Cutting Diamond-coated fibreglass tooling is recommended for best tool life, for example, a jigsaw with a Makita No. 10S Type 150 blade to cut out parts. The best edge finish is achieved with circular saws running aluminium cutting blades, however blade life is greatly reduced.

Joining and Bonding To offset the individual size of the panel, Featherlight panels can be supplied with both long edges pre-machined to facilitate joining. The Z-Joint is structurally effective and achieves a smooth and fair surface profile. A high density epoxy adhesive is specified for joining Z-joints. Contact ATL Composites for suitable adhesives.

Edge detailing and hardware attachment
Use a T-router with a ball-race to run along the laminate to remove core. Over-fill the routed edge with a low density filler compound and allow to cure. Sand the compound flush with the skins when it is fully cured.

Hoop pine blocks can be used to replace the epoxy filler in areas where latches or hinges are to be placed.

Storage Featherlight panels should be stored flat, out of direct sunlight, and kept dry and clean. Panels supplied with fibreglass skins have peel-ply on the surface, which should be left in place as long as possible, to protect them from surface contamination.

Safety Avoid inhalation and eye contact with machining dust. Wear protective equipment such as hearing protection and safety glasses during cutting operations, and gloves to avoid cuts. Use guards as per machinery manufacturers instructions.

All timber used in the manufacture of Featherlight Composite Panels is harvested using sustainable methods.

ATL Composites reserves the right to alter specifications without prior notice. Weight may vary due to variations in core density.

ATL composites

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