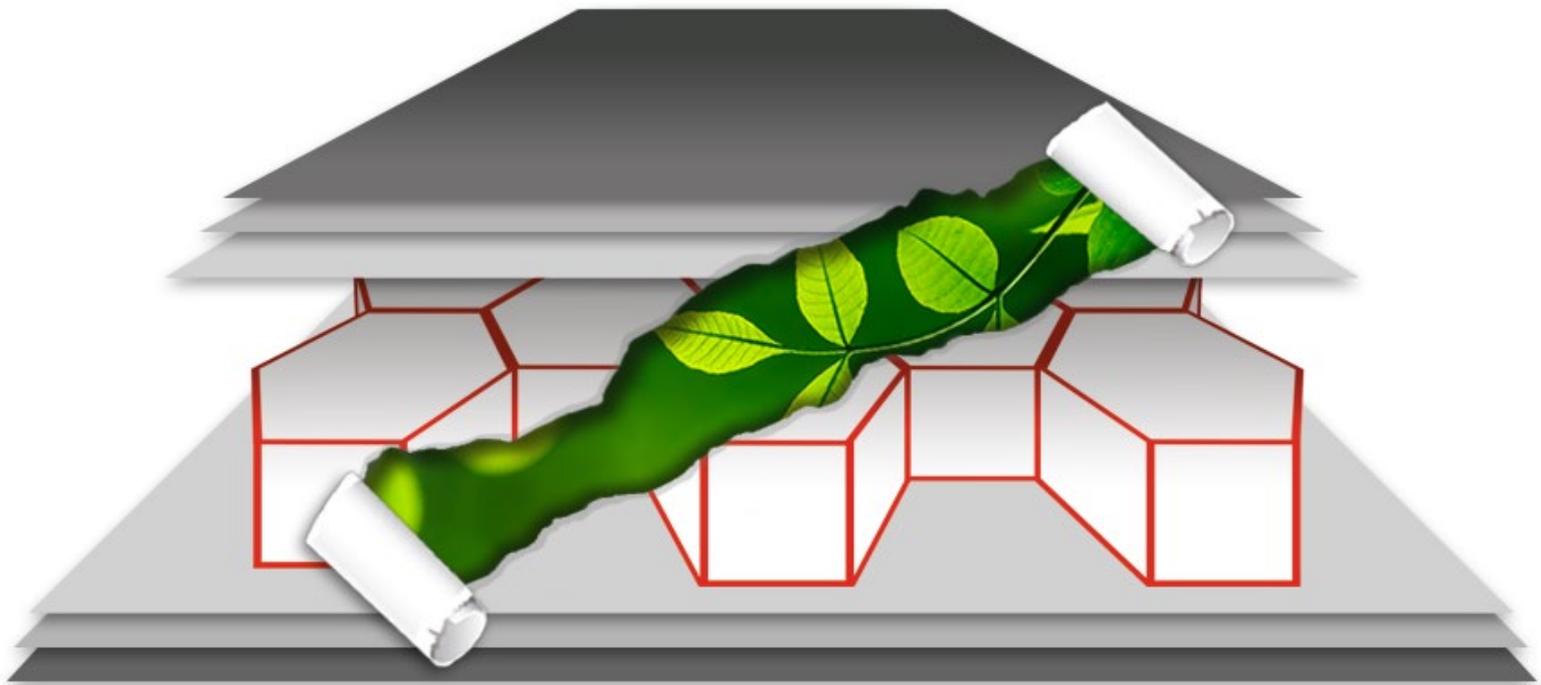


EkoTherm

The lightweight steel composite panel



with an eco conscience at its core



Partnership . Trust . Innovation

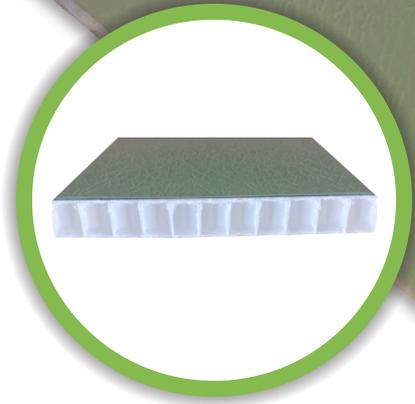
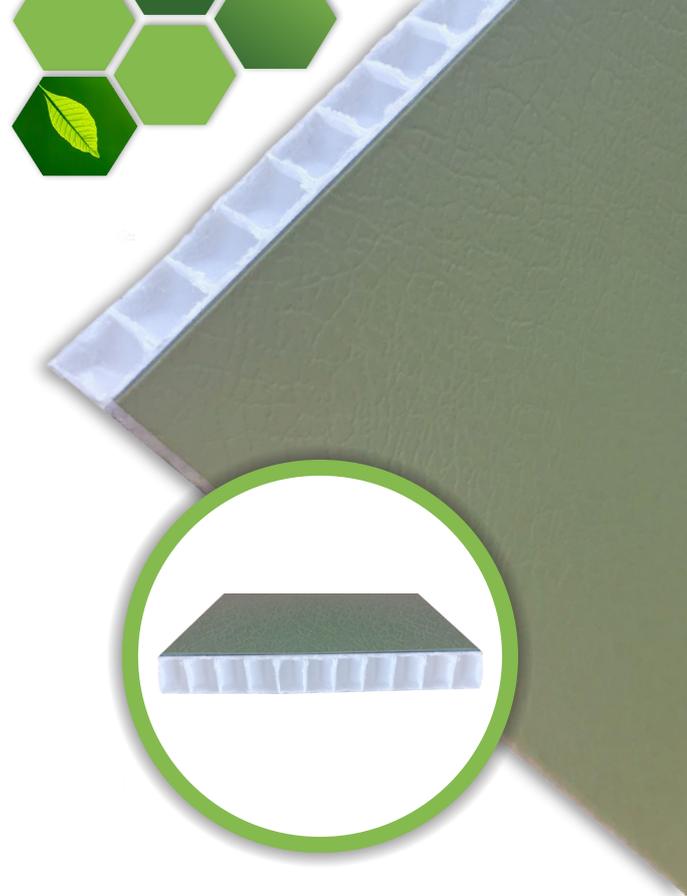


What is EkoTherm

EkoTherm is a lightweight steel composite panel with a thermoplastic honeycomb core. It is the ideal replacement for tropical hardwood plywood used in modular buildings for fascia boards, anti-vermin trims & full panel systems.

Excel bond a high-performance steel sheet to the face of the thermoplastic panel to create a strong and highly durable board. A steel balancer sheet is optional for added rigidity but, unlike with plywood, it is not a necessity.

EkoTherm's core is designed to be bonded to; the panel has a far superior bond strength compared to bonded plywood. EkoTherm does not absorb moisture and therefore will not deteriorate in service, which is particularly beneficial in areas with a high delamination risk such as vermin skirts and fascias.



The Benefits



Delamination Risk
Will not deteriorate in service, reducing the delamination risk.



Rot-proof
EkoTherm does not absorb moisture so it will not rot.



Robust
Certified BS EN 594 - 'Category 1' racking strength



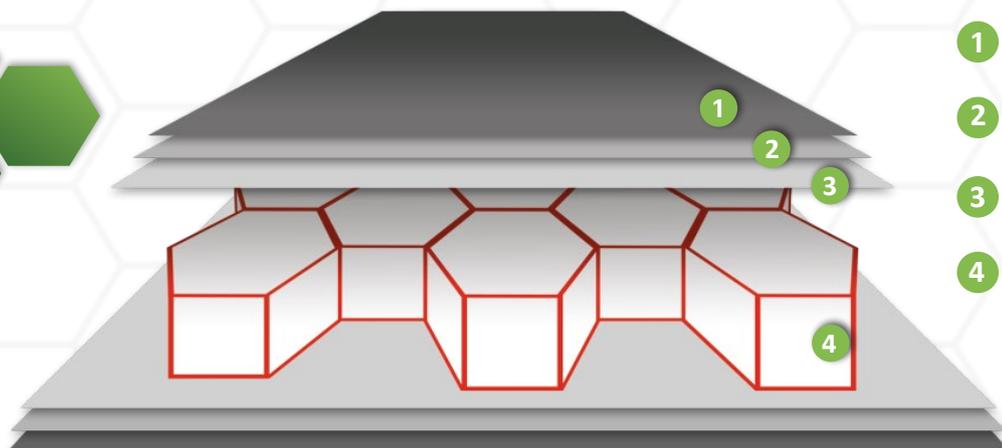
Lightweight
Almost two-thirds less weight than the plywood equivalent.



Versatile in Use
Suitable for various uses; full panels, fascias, vermin skirts.

The Composition

EkoTherm's honeycomb core incorporates Polypropylene closure film layers to prevent an intake of resin into the Thermoplastic cells during manufacturing. This guarantees uniformity and ensures outstanding technical performance from the finished product.



- 1 Steel panel
- 2 Polyester fleece layer
- 3 Polypropylene closure film
- 4 Thermoplastic honeycomb core



The Weight

EkoTherm offers the unique benefit of an increased bond strength at a reduced weight in comparison to traditional bonded Plywood.



9mm 8x4 steel-bonded Plywood*



10mm 8x4 EkoTherm*

*Panel weight may vary slightly



There is typically a **28kg** difference in weight between an EkoTherm panel and a steel-bonded plywood panel.

The Environment

EkoTherm's impressive weight reduction not only makes it easier to handle, it also creates numerous ecological benefits. The energy savings that result from using EkoTherm can help to lower your carbon footprint and build a more sustainable project. Replacing Tropical Hardwood Plywood with EkoTherm will also help to eliminate commodity-driven deforestation from your supply chain.



Thermal Insulation
Offers thermal insulation to help lower carbon footprint.



Water Resistant
Water resistance removes the risk of deterioration.



Cutting
Easily cut and creates no dust or residue in the process.



Sound Insulation
The thermoplastic core can increase sound insulation.



Optional Balancer
Unlike with plywood, a balancer sheet is not a necessity.



“

After experiencing issues with Plywood delamination, we tried EkoTherm as a vermin skirt replacement and have since opted to use it for various projects from the outset.

The cutting and application of EkoTherm is straight-forward, which makes our onsite process much easier. It also has the advantage of vastly reducing the risk of delamination, which is of great long-term value to us.

”

Technical Director | Leading Modular Manufacturer

*Company name not cited for confidentiality reasons

EkoTherm The Technical Specification



Properties:

Thermoplastic Core Thickness: 10mm

Steel Sheet Thickness: 0.5mm or 0.7mm

Optional Steel Balancer Sheet: 0.5mm

Thermal Conductivity (core): 0.065 W/mK

Compressive Strength (core): 0.6 MPa (87Psi)

Temperature Range - processing & application (core): -30°C to +80°C short term up to +140°C

Reaction to Fire: Test Standard - Class 0 BS476 part 6 & 7

Chemical Resistance: EkoTherm has excellent resistance to water, most acids, bases and salt solutions.

Resistance to UV Rays: Lasting UV resistance guaranteed.

Racking Strength: BS EN 594 Category 1 (balanced)

Racking Stiffness, R: 2407 N/mm (balanced)

Usage: EkoTherm can be cut to size, easier than Plywood, using handheld power tools. The boards can be fixed in place using screws or bonded to studs.

Sheet Sizes: EkoTherm is made to order. Bespoke sheet sizes and quantities are available upon request.



Reduced delam. risk



Rot-proof



Robust 'Category 1'



Lightweight



Versatile in use



Thermal insulation



Water resistant



Easier to cut



Acoustic insulation



Optional balancer

About Excel

Established in 1997, Excel is an independent, family-run business. We take great pride in providing an unrivalled level of commitment to our customers. We continuously invest in our people, our plant and our products to ensure that our customers receive the highest quality of service.

Our knowledge of the off-site building sector and our experience in supplying this industry, allied with our mission to develop and deliver innovative products has made us experts in engineering time-saving, high-performance solutions.

Jeff Thomas
Managing Director



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