EXCEL

Excel Packaging & Insulation Co. Ltd

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Customer Training Presentation 2025

Our history and plans for the future

Excel Packaging was founded by Graham Woolley in January 1994. Initially based in Uxbridge, Middlesex, the company relocated in 2000 to its current premises in Rickmansworth, Hertfordshire. In its early years, Excel Packaging also manufactured specialist products for the warm-water underfloor heating industry. In 2012, this division was separated into a standalone business—Epic Insulation Ltd—which operated from its own premises on the same industrial estate. Graham sold Epic Insulation in November 2024 and is now fully focused on driving the continued development of Excel Packaging.

In 2018, Excel Packaging acquired an additional unit adjacent to the original factory. This expansion provided the space needed to invest in a large-format CNC routing, knifing, and creasing table, enabling the processing of a wide variety of materials. Following the sale of Epic Insulation, significant investment is now planned for 2025. This includes expansion in space and conversion capabilities, as well as enhancements in staffing and machinery, all made possible by the now-vacant unit.

Graham’s ongoing commitment to reinvesting in the business ensures that Excel Packaging will continue to deliver the outstanding service and support our customers have come to expect.

Meet our team

Graham Woolley
Founder and Managing Director

Mimoun Elhoussaini
Operations Manager

Mark Slade
Business Development Manager

Peter Woolley
Sales / Production Co-ordinator

Jane Keough
Office Manager

Naveed Akhter
Design and CNC Supervisor

Alex Birdsall
Trainee Designer and CNC Machine Operator

Krzysztof Krus
Factory Supervisor

Materials conversion

✓We are a UK Manufacturer

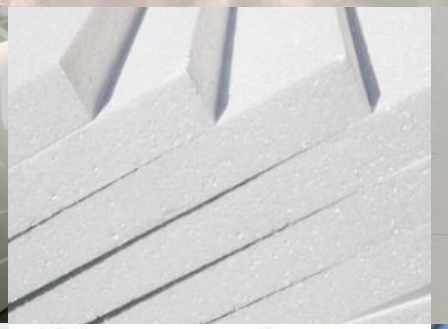
- Polystyrene blocks and sheets
- Expanded polyethylene foam
- Plastazote® & Evazote® foam
- Flexible polyurethane foam
- Envirafoam® sustainable solutions
- Corrugated Plastic (Correx®)
- CA Flute Batten/End cartons
- Ply/Batten wooden crates
- Non-standard wooden pallets
- Honeycomb board & fittings
- Moulded polystyrene containers
- Short-run Corrugated cartons
- Corrugated cardboard divisions
- Speciality materials

Theatre, Film & Display Packaging

Excel has established its position as a major supplier to the film Industry, television and theatre companies, shop display, exhibition, themed event and other similar industries. With 30 years of experience in this field, we supply a wide range of products and materials to construction managers and buyers, sculptors, special effects departments, prop makers, model makers, scenic artists and designers.

We can supply many commonly used products and materials and can also produce the finished article by employing manufacturing techniques ranging from hot-wire cutting and band knifing to routing and laminating.

- Expanded polystyrene blocks & sheets
- Hard-coats for polystyrene
- Polystyrene Spheres
- Soudafoam Gun Foam and H60
- Soudafoam Guns and gun cleaner
- Large Polythene Scrap Bags
- Grafix PVC foam sheets (Foamex)



Theatre, Film & Display Packaging

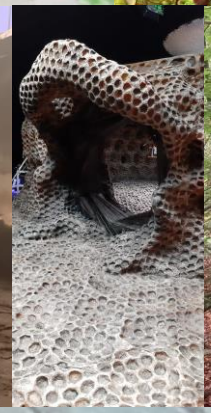
Custom 2D and 3D Polystyrene Shapes

We can produce complex 2-D and 3-D shapes and profiles in expanded polystyrene and many other foam plastic materials for props, models and a variety of scenic display applications including corporate logos and lettering for exhibitions, shop displays and themed events.










Theatre, Film & Display Packaging

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Past Productions:

We have had the pleasure of supplying materials for an extensive and varied list of productions. Our involvement in these projects ranged from the supply of stock products and materials to the production of complex finished shapes and structures. Productions we have supplied materials for are listed below;

- Corpse Bride
- 007 Die Another Day
- Charlie & the Chocolate Factory
- 007 Casino Royal
- The Mummy I & II
- The DaVinci Code
- Mission Impossible 8
- Flyboys
- Paddington 3
- Shakespeare in Love
- Phantom of The Opera
- Hogfather
- Saraha
- Thunderbirds
- The Magic Flute
- Star Wars Andor
- Sweeney Todd
- The magic Faraway Tree
- Red I
- Harry Potter
- The Intimidation Game
- The Millenium Dome
- Project Hail Mary
- Dinotopia
- Jurassic World Rebirth
- Aladdin
- Lord of the Rings
- Fast & Furious I, II, III, IV, V etc
- Mission Impossible
- The Nevers
- Sandman 1 & 2
- Barbie
- Little Mermaid
- Red II
- The Nutcracker and the Four Realms
- Morbius
- Deadpool

Expanded Polystyrene (EPS)

Expanded Polystyrene (EPS) is a highly versatile and cost-effective rigid, closed-cell foam. It is manufactured from solid polystyrene beads that expand dramatically—up to 40 times their original volume—when exposed to steam. The result is a lightweight, fully recyclable material made up of approximately 98% air. Many EPS grades now include at least 30% recycled content, which helps avoid the Plastic Packaging Tax (PPT). At Excel Packaging we process large EPS blocks into sheets or pads using precision hot-wire cutting. Additional shaping is achieved through hot-wire scooping, profiling, or CNC routing to produce the final components.

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Thermally Insulated Moulded Polystyrene Cold Boxes

Thermal Insulation Boxes

Moulded EPS Cold Boxes offer a practical, cost-effective solution for transporting temperature-sensitive goods. Lightweight and durable, they are naturally water-resistant, hygienic, and highly insulating—ideal for maintaining consistent internal temperatures during transit. Their low cost and reliability make them a popular choice across sectors such as food, pharmaceuticals and biotech.

Fabricated Cold Boxes

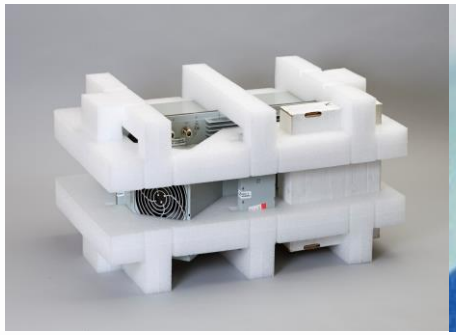
Fabricated Cold Boxes are a flexible, lightweight, and economical solution for transporting temperature-sensitive goods. Unlike moulded alternatives, these boxes can be custom-manufactured to virtually any size or specification, making them ideal for a wide range of applications.

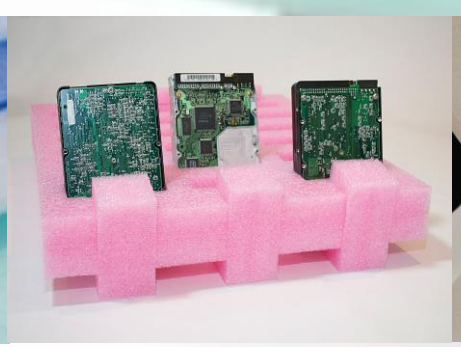
FERRI™ BOX EXCEL

Expanded Polythene Foam (Stratocell®)

Stratocell® is a laminated, closed-cell expanded polyethylene (LDPE) foam that's lightweight, non-abrasive, and ideal for protective packaging where high cushioning is essential. It's fully recyclable and most grades now include at least 30% recycled content—making them exempt from the Plastic Packaging Tax (PPT).
At Excel, we design custom-engineered packaging solutions using Stratocell® to both protect your products in transit and enhance their professional presentation.
Our capabilities include: Die-cutting, CNC routing & knifing, Heat-welding and laminating and we can also bond Stratocell® to materials like cardboard, Correx®, honeycomb board, and wood.
Industries that commonly use Stratocell® include: Electronics and consumer goods Automotive components
Medical and diagnostic equipment, Aerospace and defence, industrial machinery and engineered parts.

Anti-static and flame-retardant grades are also available if required





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Manufacturing processes (Stratocell®): Routing

Common Stratocell® packaging designs include: End caps, Trays and lids, Layer pads, Corner and edge protectors, Carton/crate dividers and liner sets. We can also incorporate special design features—such as hinged back-bars—to optimise material usage, reduce assembly time and minimise storage space requirements.

Machining Polyethylene foam utilising Knifing & Routing tables

Excel has 2 Knifing & Routing tables.

Small Router: Maximum bed size of 1500 x 1500mm
Large Router: Maximum bed size of 4500 x 2500mm

A router is a versatile tool used in manufacturing and fabrication, especially for cutting, shaping, and trimming materials like foam, wood, plastics, cardboard and paper honeycomb board.

- ✓ **Cutting:** A router is equipped with a rotating bit that can cut materials with precision. It's commonly used to cut complex shapes, edges, or curves.
- ✓ **Shaping:** Routers are great for creating custom shapes or profiles in materials. For example, they can round edges, bevel surfaces, or create decorative patterns.
- ✓ **CNC Routing:** In a more advanced setup, a CNC (Computer Numerical Control) router uses computer programming to automate the cutting process. This allows for high precision and consistency, especially for complex or repetitive designs.
- ✓ **Trimming:** Routers can also be used to trim excess material from edges or fine-tune the fit of a product.

Manufacturing processes (Stratocell®): Diecutting

A **diecutter** is a machine or tool used to cut specific shapes, designs, or patterns out of materials such as various foams, plastic, cardboard and paper honeycomb board. It's often used in packaging and manufacturing to create precise, repeatable cuts for products where much larger volumes are required.

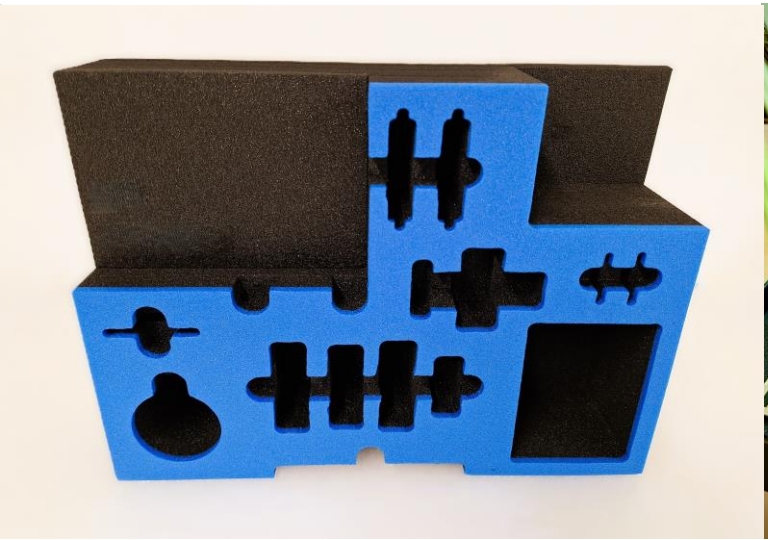
Machining Polyethylene foam utilising diecutting techniques

Excel has 3 diecutting Beam-presses with a compression ratio of up to 70 tons

- ✓ **Forme Setup:** A die is essentially a custom-shaped bladed tool that's made to match the desired shape or design you need to manufacture. The die is typically mounted onto a press or cutting machine.
- ✓ **Cutting process**: The material to be cut is placed under the die. The machine applies pressure and the die (or forme) cuts through the material, creating the exact shape or pattern.

Plastazote® ‘Permanent’ Foam

Plastazote® is a closed-cell, cross-linked polyethylene (LDPE) foam available in a wide range of colours and densities. Its consistent colour depth, excellent chemical and water resistance, UV stability, and long-lasting durability make it an ideal choice for high-end, permanent foam applications. **Common uses include:** Flight case inserts, multi-use dunnage trays for production and assembly lines, tool control foam (shadow boards) and any application requiring a robust, professional-grade display or protective insert.



Processing Plastazote® Foam

At Excel, we process Plastazote® foam using die-cutting or CNC routing/knifing to achieve precise, custom shapes. The foam can be heat-welded to itself or bonded to other materials—including brushed nylon fabric, cardboard, wood, metal, and various plastics—to create the ideal packaging or presentation solution for your needs.

Flexible Polyurethane / Polyether foams

Commonly referred to as ‘Polyether’ (PE) or ‘soft polyurethane foam’ (PU), this type of foam is an open-cell, flexible foam that boasts a seemingly endless range of applications. These foams are available in a range of different colours and densities (typically 12 – 30 kg/m^3) and exhibit excellent compressibility. This flexibility enables the material to be compressed and deformed multiple times and then bounce back to its original shape/form. Anti-static and flame-retardant grades are also available, together with a 100% recycled material which is often referred to simply as ‘reconstituted chip-foam’.





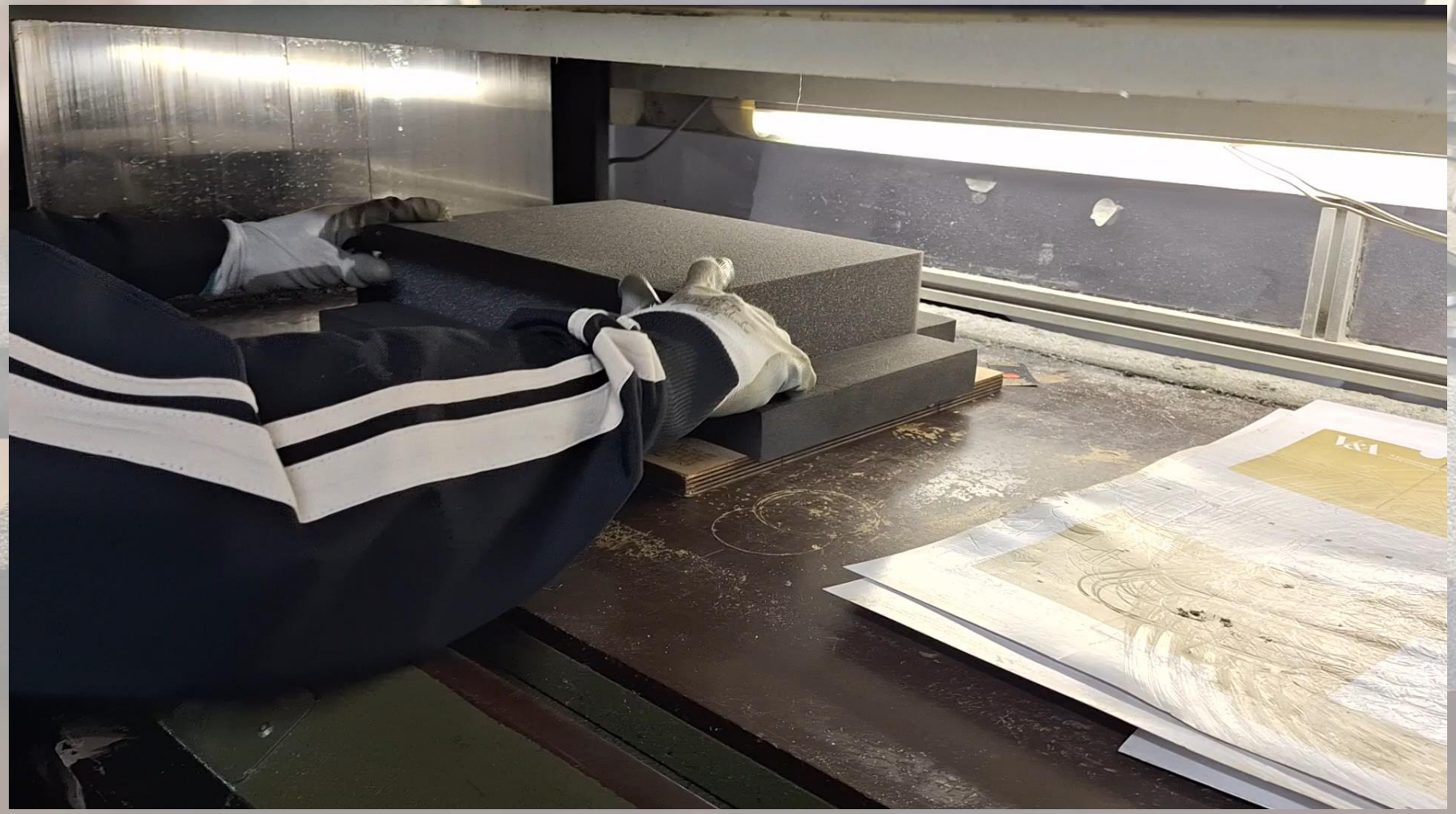
When it comes to cushioning fragile, high value items like glassware, crockery, electronic components, scientific instruments or medical equipment, custom-made protective packaging employing the use of flexible polyurethane foam, often achieves the best results.

Processing Polyurethane Foam

Our manufacturing capabilities include die-cutting and CNC knifing to shape polyurethane foam with precision. We can also laminate or glue it to other materials such as cardboard, Correx®, honeycomb board, and wood—providing flexible solutions tailored to your application.

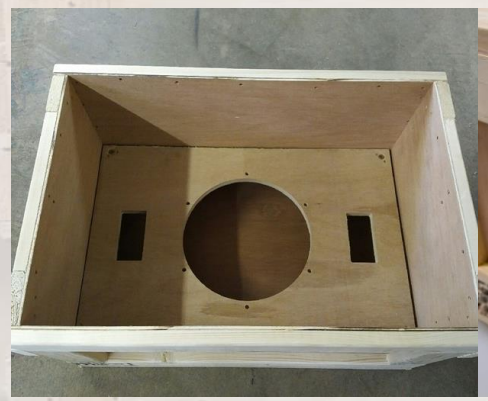
Manufacturing processes (Polyether foams): Diecutting

Diecutting Polyurethane (Polyether) foam



Ply/Batten Wooden Crates

Excel Packaging is a manufacturer of bespoke ply/batten wooden crates. Designed, manufactured and assembled in Rickmansworth, we offer bespoke ‘made to measure’ wooden crates and cases, which are produced quickly and to a very high standard. We can also incorporate additional components such as custom-made internal foam fittings, metal carry-handles, toggle latches, catch-bolts, hinges and edge & corner protectors. All of our finished products which incorporate softwood are clearly stencilled with our unique ISPM-15 identification mark (Registration No. FC0783) to ensure compliance with international standards and demonstrate their suitability for use worldwide.





Excel is a member of the UK Wood Packaging Material Marking Programme and is approved by the Forestry Commission to provide ISPM-15 certified wood packaging which has been heat treated to 56°C for a minimum of 30 minutes (56/30) to kill any pests present in the wood.

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530CA flute / Batten End cases

530CA flute/batten end cases are a high-performance packaging solution, specifically designed to handle medium to heavy-duty applications where durability and dimensional integrity are critical. Manufactured using a high-grade CA flute corrugated board, they offer excellent compression strength and superior cushioning during transit. The addition of timber battening at each end enhances edge rigidity and stacking load capacity, reducing the risk of collapse or deformation under pressure. This makes them ideal for industries requiring robust protection for products during palletisation, storage, and long-haul transport whilst reducing cost and the overall packaging weight . Whether you're looking to increase load stability, reduce damage claims, or to enhance your packaging's environmental profile, the 530CA is a proven, cost-effective solution.

- CA flute profile for optimal strength-to-weight ratio
- 100% recyclable and available in custom sizes
- Improved vertical stacking and impact resistance
- EPR ready - reduction in packaging weight

Bespoke Pallets & Tray/Cap and Sleeves

Standard wooden pallets and corrugated cardboard pallet boxes are manufactured to either UK (1200 x 1000mm) or Euro (1200 x 800mm) pallet sizes and usually in 2 different height variations. **But what if you require a non-standard size?**

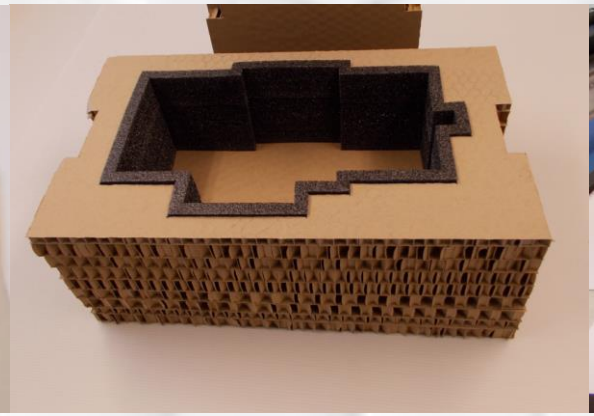
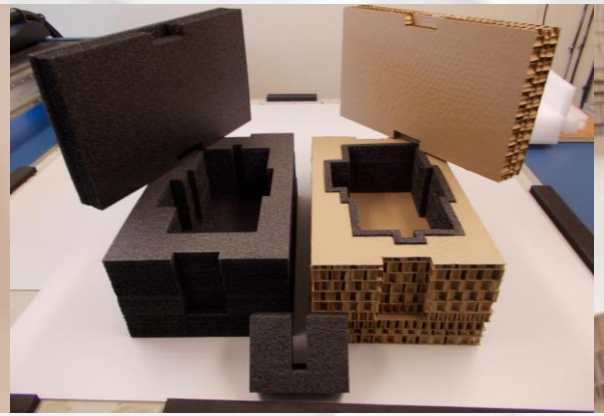
Excel manufactures custom pallets built to your exact specifications, whether you need a single unit or high-volume production. We also produce corrugated trays, caps, and sleeves that can either be integrated with your pallet or supplied separately. These are available in 300KT/BC or heavy-duty 530CA flute board grades, depending on your requirements. All our timber is FSC-certified by the Forestry Commission and clearly stamped. This certification guarantees that our wood is sourced from responsibly managed forests—reinforcing our strong commitment to sustainability.




Paper-honeycomb board

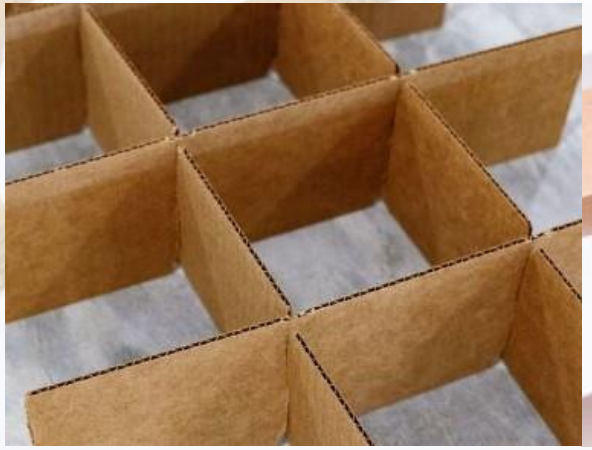
Paper honeycomb board is a light-weight material made from virgin or recycled (testliner) papers. The inner structure of paper honeycomb board gives it a very high compressive strength, which can exceed 70PSI. The material takes its name from the shape of its hexagonal inner core that resembles the honeycomb built by bees. It is 100% recyclable and available in a wide range of thicknesses and grades.

Our in-house design team provides environmentally sustainable, cost-effective protective packaging solutions, employing paper honeycomb material tailored to your specific needs. Typical designs include end-caps, trays & lids, layer pads, corner & edge protectors, carton/crate dividers & liners. The use of special design techniques, such as partial-depth cutting, enable the honeycomb board to be ‘hinged’ in order to create one-piece foldable fittings, optimizing material usage and reducing pack assembly times and storage space. Excel’s manufacturing processes include die-cutting, CNC knifing, laminating, and gluing.


Short-run corrugated cartons & divisions

Although our core manufacturing capabilities centre around foam and honeycomb products, in many cases these products are either laminated or glued on to corrugated cardboard or packed within a corrugated carton. Excel has the capability to manufacture short runs of many different Fefco designs and can produce either regular ‘slotted’ cartons or diecut designs in the following ‘stock’ board grades; 150KT/B, 150KTB/C, 200KT/B, 200KT/BC, 300KT/B, 300KT/BC, 150KT/C, 150WT/B, 150WT/BC, 150KT/E, 150WKT/E. We also stock and can convert heavy duty 530CA flute board. Other board grades are available to order.




We also specialise in creating custom divider sets tailored to your specific requirements and in a range of different materials. Whether you require single-walled or double-walled division sets made from corrugated cardboard or polypropylene or even specialist materials such as black Corstat® conductive board, we have a solution that fits. We are experts in short-run production, but have the capacity to handle larger orders as well. Whether you need your dividers assembled or non-assembled, we provide the flexibility to meet your requirements, ensuring that your products are safely and efficiently packaged.

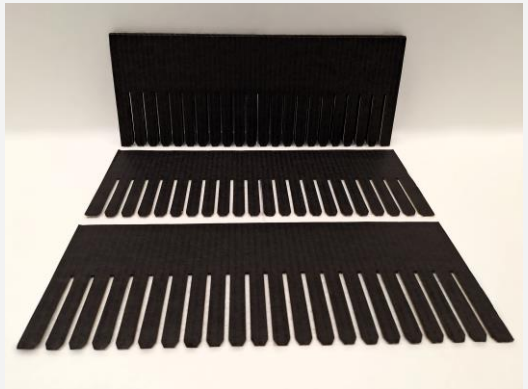
Speciality corrugated materials

Corrugated plastic or Corriboard®

Also known under the trade names of Biplex, Cartonplast, Polyflute, Coroplast, Proplex, Correx, Twinplast, Corriflute and Corflute, refers to a wide range of extruded twin-wall plastic-sheet products produced from high-impact polypropylene resin with a similar make-up to corrugated fiberboard. Materials available from stock include;

- ✓ Black 3mm x 550gsm Correx in sheet size: 2440 x 1220mm,
- ✓ White 3mm x 550gsm in a sheet size of 2440 x 1220mm.
- ✓ Light Blue 5mm x 1000gsm in a sheet size of 2440 x 1220mm.
- ✓ Other colours are available on request but are subject to a minimum order volume.

Corstat® electro-static board



Corstat® is a corrugated cardboard material treated with a black, specialized coating, allowing it to be used in the manufacturing of corrugated packaging where an electrostatic barrier is required between the packaging and the item being packed.

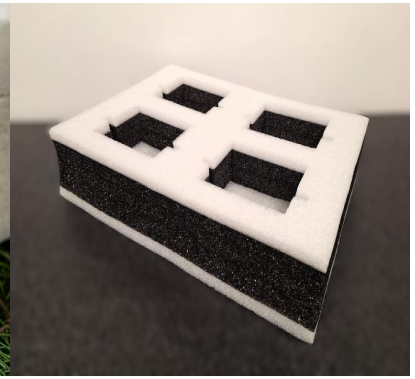
At Excel Packaging, we can convert both materials into a variety of designs with processes that include; die-cutting, CNC knifing, laminating and gluing in order to create trays & lids, layer pads, cartons and crate dividers, liners and other Fefco designs.

What ‘greener’ alternatives can we offer?

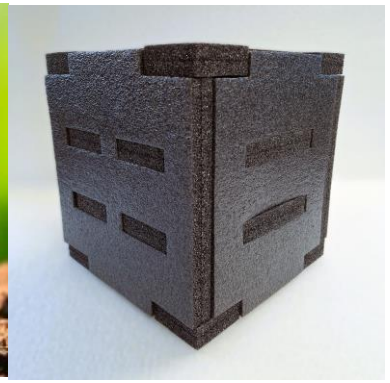
Envirafoam® by Excel Packaging

More-sustainable packaging solutions are becoming a higher priority for both brand owners and consumers. In fact, more environmentally responsible protective packaging is no longer just an option - **it's now a necessity.**

Whilst most of the protective foam packaging materials supplied by Excel incorporate at least 30% recycled material and are themselves fully recyclable, there are genuine concerns around the continued use of petro-chemical based foams, in particular due to the variability of doorstep recycling capabilities around the UK.





With the advent of some revolutionary new materials, Excel are proud to introduce of our 'trademarked' product range of more-sustainable protective foam packaging options called Envirafoam. Without compromising on performance, these fantastic new materials offer a real-world solution within a difficult product sector where pack performance and quality is required, usually at the expense of the environment.

Envirafoam® R (Recycled)

Envirafoam® R is a closed cell foam with a minimum of 65% recycled content. It is light-weight, non-abrasive and ideal for packaging applications where a high level of cushioning protection is required. In addition to being made from 65% recycled material, Envirafoam® R is also fully recyclable, is better for the environment than traditional foams and uses less material to protect your goods, making it a more sustainable and eco-friendly option.

Our capabilities include: Die-cutting, CNC routing & knifing, Heat-welding and laminating and we can also bond Envirafoam® to materials like cardboard, Correx®, honeycomb board, and wood. Industries that commonly use Stratocell® include: Electronics and consumer goods Automotive components. Medical and diagnostic equipment, aerospace and defence, industrial machinery and engineered parts.

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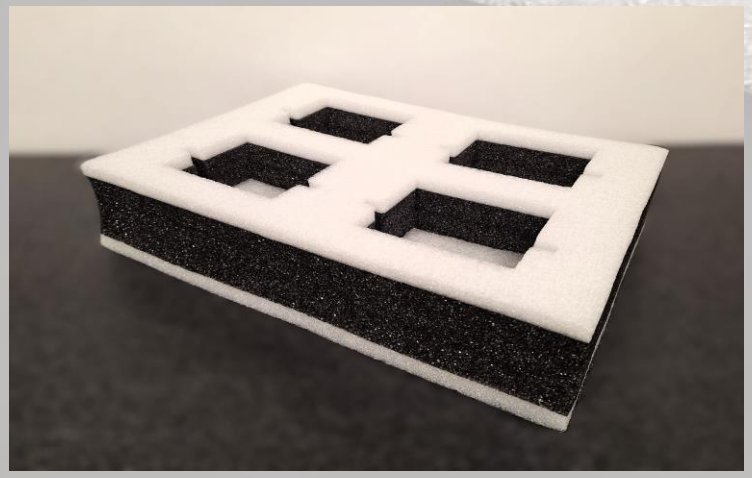
Envirafoam® Panda

Envirafoam® Panda - our latest innovation in environmentally conscious packaging solutions that beautifully combines sustainability with aesthetic appeal.
As part of the trusted Envirafoam® range, Envirafoam® Panda merges the eco-friendly strength of Black Envirafoam® R (containing 65% recycled content) with the sleek look of white polyethylene foam into a composite material. This hybrid design is perfect when the visual appeal of a clean, finish is required, but standard white foam with 30% recycled content doesn't meet your environmental goals.

By laminating black and white foams together, Envirafoam® Panda achieves the desired balance between aesthetics and eco-consciousness, without compromising strength or integrity. Its lightweight, non-abrasive, closed-cell expanded polyethylene (LDPE) foam offers excellent cushioning and protection, making it an ideal choice for various packaging applications. The material thicknesses can be customized to adjust recycled content, ensuring optimal sustainability.



Key Benefits:

- ✓ **Environmentally conscious with adjustable recycled content.**
- ✓ **Visually attractive; clean finish for enhanced aesthetics.**
- ✓ **Made from fully recyclable polyethylene foam.**
- ✓ **Offers superior cushioning and protection for packaging applications.**

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Envirafoam® E P (Expanded Polyethylene)

Envirafoam® EP is a highly resilient closed-cell bead foam packaging material, manufactured from EPE (expanded polyethylene). The material has excellent properties for absorbing and dissipating energy and exhibits isotropic behaviour (uniform performance in all directions). This means it is perfect for packing highly sensitive products.

Envirafoam® EP is 100% recyclable, has 30% recycled content sourced and most importantly enables material savings of up to 40% versus other PE foams, whilst maintaining the same protective properties. The material is available in 3 densities, these include 20kg, 30kg and 45kg varieties. The 45kg could be considered as the 'missing link' between traditional Stratocell® and Plastazote® foams, offering a truly sustainable and cost-effective alternative to traditional Zote foams.

Available Colour:
Black

Density Options:
20/ 30/ 45 Kg/m3

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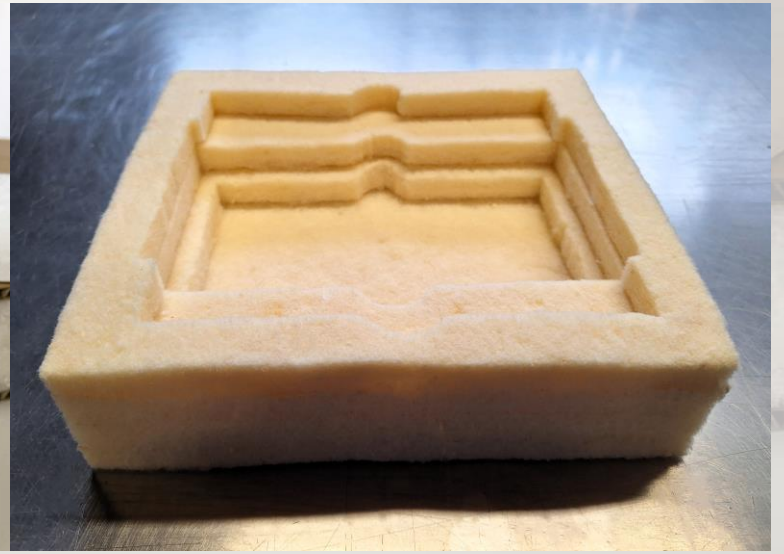
Envirafoam® W P (Fibrease®)

Envirafoam® WP (Fibrease®) is a lightweight wood fiber-based foam material made from FSC certified Nordic wood. It is a soft yet resilient material with memory foam like behaviour. Crucially, it is fully kerbside recyclable in the paper/cardboard waste stream (PTS assessment RH 021:2012). This revolutionary material significantly reduces CO2-emissions when replacing polymer-based foams and is produced using an efficient dry-forming process, employing low energy and zero water consumption. It has been designed to replace traditional 'polymer' foams in some packaging solutions and can also be used as a viable alternative to Polystyrene where thermal insulation is required.

Made using FSC-certified wood pulp, it is a soft yet resilient material with a memory foam like behaviour. We can apply various conversion methods including sawing, die-cutting and laminating to create your desired pack.




Design
Innovate
Develop
Produce