

Hygiene Solutions

Catalogue 2023/2024



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1. What is FRP?

Polyester Resin + Fibre Reinforcement

Fiberglass Reinforced Polymer (FRP), is a fibreglass reinforced composite within a plastic matrix. A wide variety of physical strengths, chemical and mechanical properties can be designed into FRP by configuring the reinforcement. For example, UV resistance, cleanability and durability can be optimised through the choice of plastic and matrix additives allowing. This makes FRP composites an ideal choice for achieving performance goals with minimal waste, weight and cost compared to traditional materials such as woods, metals or ceramics.

Why FRP?



LightWeight



Easy to Install



Fire Rated



Impact Resistant



Leak Resistant



Mold Resistant



Mildew Resistant



Moisture Resistant



Maintenance Free



Durable



Corrosion Resistant



Easy to clean

2. Crane Composites®

CRANE

Composites

About Crane Composites®

Since 1954, Crane Composites® have continued to pioneer numerous patented technologies for industrial and commercial product applications. They have built a proven reputation for industry leadership by partnering with customers and suppliers to deliver advanced, industry-leading solutions.

As the pioneer in FRP panels, Kemlite was established in 1954, and Crane Co. acquired the company in 1985. The Kemlite name was changed to Crane Composites in 2008 to reflect the company's ongoing new product innovations in numerous fields.

Building Products

Crane Composites wall and ceiling panels are widely used in the construction industry. These panels offer a number of significant features including resistance to mold, mildew bacteria, high impact strength, high moisture resistance, chemical resistance and stain resistance,



Recreational and Transport Vehicles

Crane Composites exterior and interior gel coated and fiberglass products, designed for the RV industry have a well earned reputation for combining high performance and style; making Crane Composites the worlds leading producer of fibreglass products for the RV industry. In this, FRP panels offer unmatched durability and long-lasting beauty.



3. Glasbord® with Surfaseal®

Panels With Surfaseal® Finish

For Internal Wall and Ceiling Cladding



The Unique Glasbord® with Surfaseal®, Only found with Crane Composites®

Glasbord® with Surfaseal® is a unique solution that offers unsurpassed hygiene and high durability required in

critical areas that demand high-performance finishes. Our unique Surfaseal® film equips our wall panel with

the best hygienic performance combined with highest stain, impact and scratch resistance.

The Surfaseal film finish, found only on Glasbord, provides a barrier that's highly resistant to impact and scratching. Because of our

unique process, the Surfaseal finish will not trap soil or bacteria on the panel.

Certifications



Surface Finishes

Pebbled Embossed and Smooth Textures



Product Specifications

Available Sizes:

Cut to length

1.20 m x 2.44 m

1.20 m x 2.74 m

1.20 m x 3.05 m

Also available in coils up to 251-meter length and up to 2.5-meter width

Thicknesses:

Embossed:

1.3mm

1.5mm

2.3mm

Smooth:

1.9mm

Fire Ratings:

Class C

Class A

FM Approved

Our Glasbord® is coated with Surfaseal®

10x Easier to Clean
6x More Stain Resistant

	GLASBORD surfaseal	frp A	frp B	frp C	frp D
BEFORE STAINING 25x magnification					
AFTER STAINING 25x magnification					
AFTER STAINING 93x magnification					

4. Other Surfaces

Varietex®

For Internal Wall and Ceiling Cladding



Add depth and dimension to walls, with our unique textures including sandstone, linen, tile and beaded finishes. Beyond the beauty, Varietex offers all the same benefits of traditional FRP wall coverings. With the added bonus that grout lines are sealed, avoiding the grimy build up and deep cleaning associated with traditional tiles.

Available Sizes: Thicknesses:

1.22 m x 2.44 m

1.22 m x 3.05 m

Linen/Sandstone:

2.3mm

Beaded:

1.9mm

Fire Ratings:

Class C

Class A

Designs Panels

For Internal Wall and Ceiling Cladding



Crane composites can alter any existing pattern or create your own unique design from scratch breathing life into your spaces through incorporating logos and artwork with vibrant high resolution imagery and attention to detail

Available Sizes: Thicknesses:

1.22 m x 2.44 m

1.22 m x 3.05 m

Fire Ratings:

Class C

Class A

1.9mm

5. Industries



Food Processing



Cloud Kitchens



Hospitality



Modular Housing



Supermarkets



Healthcare



Indoor Farming



Residential



Education

6. Applications

Food Plants



Why food plants?

Food manufacturing plants are subject to the harshest conditions in any hygienic application. Food plants are regularly subjected to intense cleaning, high levels of chemicals, high pressures and high temperatures of water. The surface selected must be able to withstand such conditions and maintain required hygiene standards.

Which areas?

Our solution range is best suited in production environments where durability, hygiene and high quality finish is required. Examples of this are:

- Meat Processing
- Slaughterhouses
- Fruit and vegetable
- Dairy processing
- Seafood facilities
- Poultry processing
- Heavy industrial kitchens

Cold Stores



Why cold stores?

Cold storage requires high levels insulative material in order to be efficient as well as high levels of humidity and temperature control. Furthermore cold store walls are often neglected and result in high levels of damage on the walls as well as reduced hygiene standards.

Which areas?

Cold storage corridors are especially vulnerable as well as doors and cold storage loading areas. Examples are:

- Cold storage loading areas
- Cold store corridors
- Cold store doors (due to impact resistance)
- Pharmaceutical cold storage
- Transport refrigeration

Clean rooms



Why Clean rooms?

Clean rooms are often heavily temperature controlled and are extremely sensitive to wall and ceiling finishes. We can provide cleanroom suitable wall and ceiling finishes while providing the necessary insulation to efficiently cool the environment.

Which areas?

Clean room applications where temperature, humidity and air quality are managed. Examples of this are:

- Laboratories
- Medical equipment manufacturing
- Drug manufacturing

Vertical Farms



Why vertical farms

Vertical farming is an innovative approach to agriculture that involves growing crops in vertically stacked layers. In vertical farms hygiene is a paramount concern as poor hygiene on walls and ceilings can lead to outbreaks of pathogens which could devastate entire crops due to the high density.

Which areas?

Due to the regular sanitation requirements of vertical farms as well as the strict adherence to temperature and humidity, our solutions are most suitable for:

- Indoor farm walls and ceiling
- Indoor farm doors of egress/exit
- Testing laboratories
- Seed storage locations
- Harvest storage and transportation locations

2.

Engineered Hygiene Solutions

1. Traditional installation

2. Hygibreak[®]

3. HygiSpan[®]

4. HygiCold

5. HygiDoor

6. HygiMat

1. Traditional Installation

Emulsion Polymer Spread on back of panel



Traditional FRP installation consists of spreading the supplied emulsion polymer onto the back of the panel for and mounting on the wall. Specific products are required depending on the substrate.

Benefits of Traditional Installation

- Cost effective solution compared to other wall coverings such as ceramic tile
- Is suitable for panels up to 3m

Traditional installation is used as a cladding method on top of built wall or ceiling. It is mostly used in smaller applications where panels are not extremely long (>3m) such as a commercial kitchen.

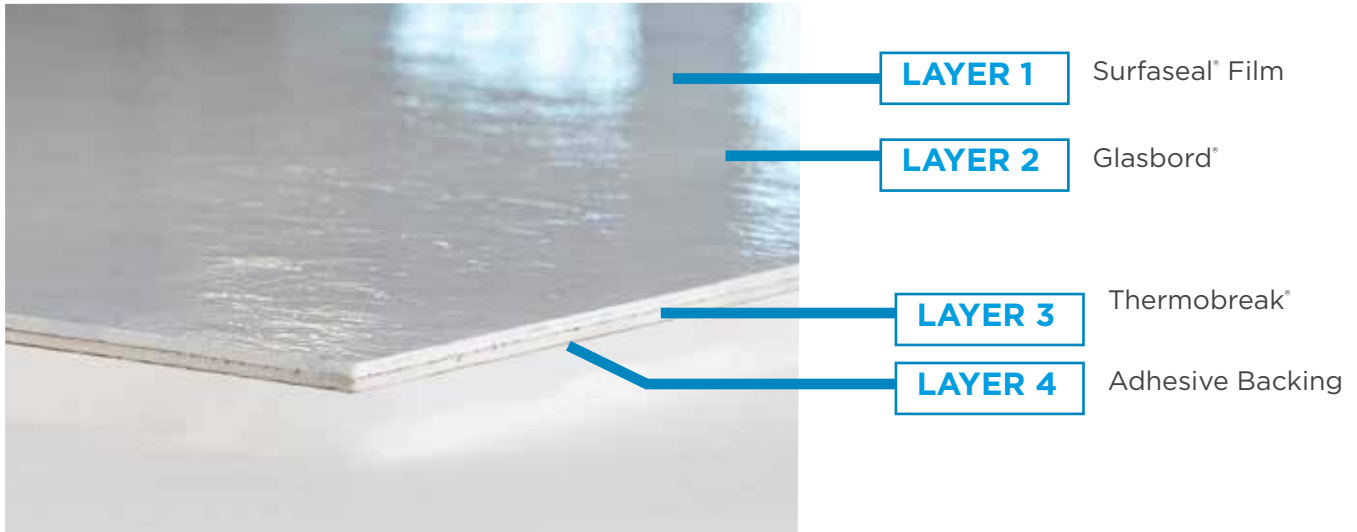
For the best results, we recommend that the panels are 100% backed with the adhesive to ensure adhesion to the substrate.



2. Hygibreak®

HYGIBREAK®

Peel and Stick Cladding System



What is Hygibreak®?

A combination of Crane Composites® FRP Glasbord coated with Surfaseal film backed with Thermobreak® physically crosslinked insulation to make a unique cladding self adhesive peel and stick direct fix panel

Benefits of Hygibreak®

Hygibreak® is a revolutionary installation method in the FRP Space. It is the first hygienic wall cladding of its kind providing efficient installation, minimising user errors and with exceptional surface adhesion.

- Faster installation means less time / Labor / Equipment on site (2x as fast as traditional installations)
- Adhesive backing shelf life is much longer than traditional Adhesive
- Does not require cooled storage
- Already applied to 100% of back of FRP panel - even spread is not an issue
- Requires a lower skill to install than traditional methods
- Panels come in Coils / Cut to length with Adhesive backing - minimizing adhesive wastage
- Foam Backing means minor imperfections in walls are bridged
- Large range of Adhearance surfaces compared to traditional adhesive
- Larger individual panels can be installed due to nature of installation
- Can be installed directly on Ceramic Tiles

Installation methodology

For Most Applications



Step 1: Measure



Step 2: Install Base Profile



Step 3: Peel Backing



Step 4: Install Cover Profile



Thermobreak[®] is the leading and most innovative Polyolefin foam thermal insulation available to the HVAC and building industry worldwide. Thermobreak[®] performance is unsurpassed.

Thermobreak[®] thermal insulation is an all-in-one closed cell physically crosslinked Polyolefin foam that is manufactured in compliance to ASTM C1427 standard.

Superior Performance For Energy Saving

The unique physically crosslinked technology results in a smaller and more evenly distributed cell structure. Cell structure directly affects thermal conductivity and vapour permeability. Both are key factors in insulation performance.

Thermal Conductivity: 0.032 W/mK (23 C)

The lowest of any flexible insulation material.

Vapour permeability of almost Zero

Ensures the thermal conductivity remains relatively constant for an extended period of years thus significantly contributing to building sustainability and energy cost reduction.



Compliance to international Fire Standards

Thermobreak[®] has been tested and complies to international fire and smoke standards including:

- BRITISH (BS 476 CLASS 0)
- ASTM (ASTM E-84)
- UL 94 (HF-1)



Building Sustainability

- Green star compliant (VOC)
- NO CFC's or HCFC's
- Zero Ozone depletion potential
- Low GWP
- Compliance to RoHS directive
- Compliance to REACH directive
- Resistance to Mould Growth
- Non-allergenic properties



Hygibreak® Range

Hygibreak®

Glasbord® with Surfaseal® with Self adhesive Peel and Stick Backing



Our standard application of Hygibreak® is backed with a 1.5mm self adhesive backing, which is the most versatile thickness for most applications.

Available in Rolls and Sheets.

Backing Thickness	Surface	Width	Joint Treatment	Max Panel length
1.5mm - 50mm**	Glasbord® with Surfaseal®	1.2m - 2.5m	Profiles, sealant	12m

**12mm Aluminium Backing Ceiling tiles and 15mm Open Cell Sound Insulation are also available.

Thermobreak® Technical Information

Material	Physically (irradiation) crosslinked closed cell Polyolefin foam
Density	25kg/m ³ (foam core only)
Thermal conductivity (ASTM C518)	0.032 W/mK (@23 C mean temp) 0.036 W/mK (@36 C mean temp)
Water vapour permeability	2.78 x 10 ⁻¹⁴ kg/Pa.s.m
Water absorption by volume	<1% v/v
Permeability resistance factor	u > 7000
Resistance to fungi (ASTM G21)	Zero Growth
Operating temperature range	-25 C - +55 C

Glasbord® with Surfaseal® Technical Information

	1.5mm Embossed Class C Glasbord® with Surfaseal®	1.9mm Smooth Class C Glasbord® with Surfaseal®
Flexural Strength	124 MPa	97 MPa
Flexural Modulus	5102 MPa	5171 MPa
Tensile Modulus	8963 MPa	6895 MPa
Tensile Strength	59 MPa	48 MPa
Barcol Hardness	40	45
Izod Impact	0.91 J/mm	0.69 J/mm
Taber Abrasion resistance (CS17 Wheels, 1000g, Wt 25 Cycles)	0.015% Max Wt. Loss	0.038% Max Wt. Loss

3. Hygispan®

HYGISPAN®

Hygienic Insulated Panels

Hygienic Industrial Sandwich Panels



What is Hygispan®?

Hygispan® is a hygienic insulated sandwich panel that provides solutions for industrial sandwich panel applications with a range of available insulations and finishes for internal walls and ceilings build up.

Benefits of Hygispan®

- Superior thermal insulation, while providing a high level of hygiene
- Superior sound insulation
- High levels of Fire resistance when using specified engineered options
- Chemical resistance thanks to Glasbord® with Surfaseal®
- Resistant to high pressure cleaning
- Available in single sided or double sided Glasbord® with Surfaseal®, so is suitable for partition walls
- Full range of profiles and accessories are available for a complete system installation

Applications and Industries

- Hygispan® is best suited for large span projects where thermal insulation is required along with a high level of hygiene. Hygispan® can be used for new builds of food plants and other facilities where a high level of hygiene is required.
- We can provide design for thermal calculation aswell to size your panel requirements based on your needs.
- We can also provide a range of solutions for renovations and cold room to freezer conversions using our 20mm thick panel range which allows for direct cladding ontop of existing walls and ceilings.

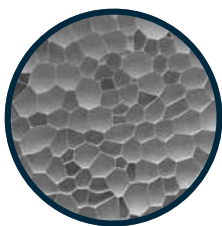
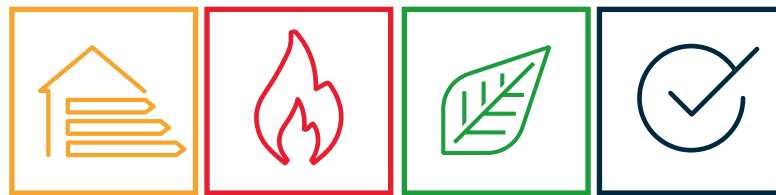
POWERED BY
QuadCore[™]
TECHNOLOGY

1. Kingspan Quadcore[®]

QuadCore[®] is Kingspan's hybrid insulation core technology with a unique formulation that creates microcells with unrivaled thermal performance, superior fire protection and unmatched health & wellness certification.

Benefits of Quadcore[®]

- Class Leading R value of R value of R-8.0 per inch means Quadcore[®] is certified as one of the most thermally efficient closed cell insulation core on the market
- Up to 60% better thermal resistance
- The higher thermal resistance means you can use thinner Quadcore[®] panels compared to PIR
- The better thermal efficiency reduces the load on cooling creating significant energy savings
- Quadcore[®] is low VOC Certified
- Quadcore[®] has a fireload energy release of almost 15% less than that of standard PIR when comparing insulation thicknesses to achieve matching U values.
- Class leading aged lambda value of 0.018 W/m.K
- Reduction in emissions associated with its use and during its construction makes it a more environmentally sustainable option



2. Standard PIR core

Hygispan® standard PIR is far superior to PUR due to:

- Superior thermal resistance to PUR
- Higher levels of dimensional stability
- PIR has a reduced flame spread and smoke development



3. Rockwool insulated core

Hygispan® rockwool panels are an excellent combination of hygiene and fire performance

- Through the use of rockwool insulation which are resistant to high temperatures, the fire spread through the building will be limited
- The panels have a non-combustable core
- The rockwool insulation also provides a high level of sound insulation
- Rockwool panels have a high level of durability making them a cost effective solution



Hygispan® Range

Hygispan® Quadcore®

Glasbord® with Surfaseal® with Quadcore®

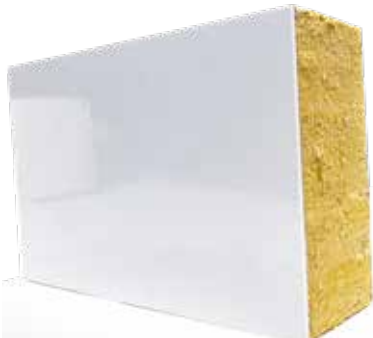


Applications for where a high level of hygiene is required, is available single sided and double sided using the highest standard Quadcore® insulation.

Panel Thickness (mm)	Joint Treatment	Max Panel length	Front surface	Back surface
60-200	Sealant	12m	Glasbord® with Surfaseal®	Glasbord® with Surfaseal®, steel, aluminium craft

Hygispan® Firesafe

Glasbord® with Surfaseal® with rockwool insulated core

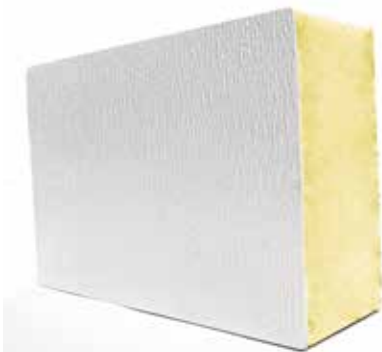


Hygienic applications where a high level of fire resistance is required. Design is required to correctly size panels based on fire requirement.

Panel Thickness (mm)	Joint Treatment	Max Panel length	Front surface	Back surface
100-170	Sealant	8m	Glasbord® with Surfaseal®	Glasbord® with Surfaseal®, steel

Hygispan® PIR

Glasbord® with Surfaseal® with a PIR foam core



Applications for where a high level of hygiene is required, is available single sided and double sided.

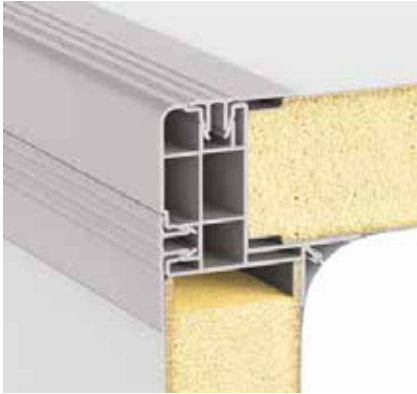
Panel Thickness (mm)	Joint Treatment	Max Panel length	Front surface	Back surface
50-150**	Sealant	10m	Glasbord® with Surfaseal®	Glasbord® with Surfaseal®, steel, aluminium craft

**Available in 20mm single sided board for renovations.

Hygicold Range

Hygicold Industrial

Glasbord® with Surfaseal® with an Industrial panel assembly system



Hygienic fast Industrial panels using accessories to provide a complete hygienic cold room.

Panel Thickness (mm)	Joint Treatment	Max Panel length	Front surface	Back surface
100,120	Sealant	6m	Glasbord® with Surfaseal®	Glasbord® with Surfaseal®,steel

Hygicold Modular

Glasbord® with Surfaseal® modular camlock assembly



Hygienic fast assembly completely modular cold room where panels can lock in together which provides a very high quality finishes with a high strength at joints.

Panel Thickness (mm)	Joint Treatment	Max Panel length	Front surface	Back surface
80,100	Sealant	4m	Glasbord® with Surfaseal®	Glasbord® with Surfaseal®,steel



5. Hygidoor



Hygienic Door Solutions



What is Hygidoor?

Hygidoor is the pinnacle of hygiene and safety in food processing environments. Designed to meet the rigorous standards of the food industry, this specialized door system combines innovation, durability, and stringent sanitation protocols to ensure the utmost cleanliness and protection for your facility.

Benefits of Hygidoor

- Food-Grade Materials: Glasbord® with Surfaseal® is HACCP approved
- Sealed Gaskets for Airtight Seal: High-quality gaskets create an airtight seal, preventing contamination and maintaining controlled environments.
- Smooth and Easy Operation: Ergonomic handles or touchless entry options for user convenience and reduced cross-contamination risk.
- Customizable Sizes: Tailored to your facility's specific requirements for a perfect fit and maximum efficiency.
- Hygienic Hardware Components: All hardware made from food-safe materials, designed for easy cleaning and maintenance.
- Transparent Viewing Options: Includes shatterproof windows for visibility while maintaining hygiene and safety.
- Durability for Long-Term Use: Built to withstand the demands of food processing environments, reducing the need for frequent replacements.

Applications and Industries

- Hygidoor will increase the durability and hygiene of a regular door due to the Glasbord® with Surfaseal®
- Generally, Hygidoor is best suited in processing facilities, cleanrooms and food storage locations
- Our hygienic surface can be applied to both sides of the door making it suitable for doors located in corridors where only 1 side requires elevated hygiene

Hygidoor Range

Hygidoor hinged

Glasbord® with Surfaseal® hinged doors



Hygienic and insulated with airtight elements to access cold rooms. Available in PVC, Aluminium and steel accessories. Can be insulated with PIR and Quadcore®.

Door Thickness (mm)	surface finishes	Frame Material	Gasket type	Other Accessories
60-120	Glasbord® with Surfaseal®	PVC, Aluminium, Stainless Steel	EPDM	Heating rail, door lock

Hygidoor Sliding

Glasbord® with Surfaseal® sliding doors



Hygienic wide opening doors (>1200mm) which saves space, is available in an electronic automatic opening option. Can be insulated with PIR and Quadcore®.

Door Thickness (mm)	surface finishes	Frame Material	Gasket type	Other Accessories
80-150	Glasbord® with Surfaseal®	PVC, Aluminium, Stainless Steel	EPDM	Heating rail, door lock

Hygidoor flip flap

Glasbord® with Surfaseal® flip flap doors



Hygienic flip flap doors which is mainly used in high traffic facilities due to the ease of opening. A range of accessories can be installed from windows to bumprails.

Door Thickness (mm)	surface finishes	Frame Material	Gasket type	Other Accessories
40-60	Glasbord® with Surfaseal®	Composite of PVC and stainless steel	EPDM	Heating rail, door lock

6. Hygimat

HYGIMAT

Hygienic Laminated Solutions



What is Hygimat?

Hygimat is a composite material that consists of Glasbord® with Surfaseal® adhered to various rigid boards such as cement board and calcium silicate. This unique combination aims to harness the strengths of both components: the durability and hygiene of FRP with the stability and versatility of traditional board materials.

Benefits of Hygimat

- **Rigid Base:** The rigid boards give structural strength and stability, allowing the thin composite to be used as wall panels and ceilings
- **Easy Installation:** The combined properties of FRP and the rigid boards make Hygimat® easy to cut and install. It can be affixed using traditional methods, and its lightweight nature reduces labor and installation costs.
- **Fire rated solution:** Can be used to provide a fire rated wall of up to 2 hours using the tested engineered approved solution

Applications and Industries

- Hygimat is an excellent solution for modular buildings and porta cabins where the panels can be incorporated into the production line while being constructed and reduce the overall manhours of production or can be fixed directly onto the existing subframe at site.
- Due to the fire rated substrates which can be used, Hygimat® is one of the fastest solutions where a fire rated wall is needed

1. Promat® Promatech H®

PROMATECT®-H is a non combustible matrix engineered mineral board reinforced with selected fibres and fillers. It does not contain formaldehyde. PROMATECT®-H is resistant to the effects of moisture and will not physically deteriorate when used in damp or humid conditions, although PROMATECT®-H is not designed for application in areas subject to continual damp or high temperatures.

Boards do not encourage mould growth and are resistant to attacks by insects or vermin. No maintenance or repair is required over their service life.

PROMATECT®-H boards have a reaction to fire classification A1 or non-combustible according to /EN13501-1/.

Benefits of Promatech H®

- Non Combustible
- Resistant to the effects of Moisture and humidity
- Hard wearing and impact resistant
- Up to 4 hour fire protection for some systems
- Performance characteristics are not degraded by age or moisture



2. Cement Board

Cement Board is a popular choice of Rigid substrate due to its high versatility and weather resistance. It requires minimal maintenance and is highly modifiable to assist with easy installation.



Hygimat Range

Calcium Silicate Board

Promat® Promatect H® Calcium Silicate Board



This application is used where a fire rating is required. Please note that framing structure must also be compliant to achieve fire rating. Contact us for more information.

Backing Thickness	Lamination Side	Fixing Method	Joint Treatment	Max Panel length
9mm,12mm	Single, Double	Screws, Rivets	Sealant	3.05m

Cement Board

Fibre Cement Board



This application is a cost effective solution especially for locations where framing has been completed and a hygienic finish is required. simply screw / Rivet the panels in place. A sealant joint treatment is required.

Backing Thickness	Lamination Side	Fixing Method	Joint Treatment	Max Panel length
4.5mm,6mm,9mm	Single, Double	Screws, Rivets	Sealant	3.05m

Ceiling Tiles

Tiles for Suspended Ceiling Applications



We can provide solutions for suspended ceiling applications using a range of backings. FRP suspended ceilings are an extremely cost effective installation while providing one of the highest levels of hygiene in all ceiling applications.

Item	Details
Backing Types	Hygibreak®, Cement Board, Calcium Silicate Board, FRP alone*
Standard Sizing	60x60 , 60x120cm
Seating style	Nontegular
FRP Thickness recommended	1.5mm Embossed, 1.90mm Smooth

3.

Profiles and Protections

Profiles and Protections

PVC

Our standard solution - suitable for most installations



We offer a range of solutions for traditional, Hygibreak and Laminate installations. PVC maintains high level of hygiene while protecting the back substrates. We can provide PVC with seals for the highest protection against water penetration.

Stainless Steel

Architecturally finished for the best aesthetics



Our Stainless steel range comes in either brushed or polished finish at either 304 or 316 food grade.

Polyurethane Sealant

For seamless installations



We can provide a PU sealant with hardener for applications where joints should be minimally visible.

Covings

Complete hygeinic finishes



We can provide covings in a range of sizes from 4cm to 10cm to provide coverage for a range of applications and aesthetics.

Corner Pieces

For protection and strength



Outside corners are a crucial part of construction for both durability and safety. We have options ranging from PVC soft corners to Stainless steel heavy duty finishes.

Floor to Wall Skirting

For high protection against dirt build up



We offer a range of solutions from light to heavy duty depending on requirements. We can offer high strength solutions to protect from impact and damage.

Stainless steel Kerbs

For the heaviest duty required



For areas with continuous forklift use under high traffic, our range of concrete infill stainless steel kerbing will provide highest levels of protection.

Bollards

For protection of key assets



Our range of bollards available in heavy duty PVC and Stainless steel are the ideal solution when certain elements require additional protection eg. Sliding doors and sensitive equipment.

Bump Rails

For additional wall protections



Bump rails or guard rails are ideal when walls are under continuous impact of equipment. The large protective pads provide additional dampening of the impacts.