

HYGIBREAK

HYGIENIC WALL AND CEILING CLADDING SYSTEM



Multi Surface | Fire rated | self adhesive | zero panel wastage

THERMOBREAK
Thermal & Acoustic Insulation

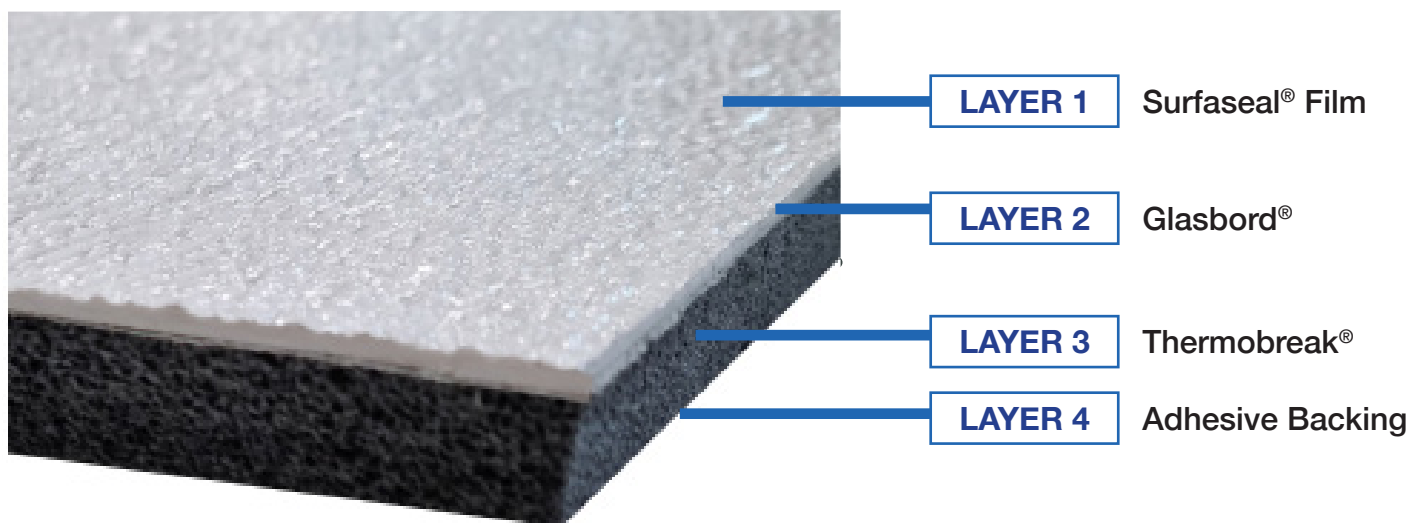
**PHYSICALLY
CROSSLINKED**
SEKISUI TECHNOLOGY

CRANE Composites

GLASBORD
SURFASEAL

WHAT IS HYGIBREAK

HYGIBREAK is a combination of Crane Glasbord® FRP panel coated with Surfaseal® film backed with Thermobreak® physically crosslinked insulation to make a unique cladding self adhesive direct fix panel.



BENEFITS OF HYGIBREAK

- Lifetime non-corrosive surface.
- Unique Surfaseal® finish making it the most hygienic offering in the industry thanks to the high stain resistance and ease of cleaning.
- The Surfaseal® film provides a vapor barrier preventing transfer of spores.
- Unique HACCP and UL GREENGUARD Gold certified for low chemical emissions to decrease indoor pollution levels.
- Fire rated surface: Class C, Class A (UL) and FM Global.
- Faster to install compared to traditional FRP thanks to Thermobreak® backing adhesive.
- Chemically resistant surface that outlasts problems caused by the repetitive and excessive cleaning.
- Pore free surface: will not trap soil, bacteria, moisture and water. Mold and mildew free.
- Lowest cost of ownership due to the low cost of maintenance that provides the highest ROI over time.

**LONG
LASTING**



**10X EASIER
TO CLEAN***



**EASY TO
INSTALL**



**BIOLOGICAL
RESISTANCE**



**MORE
DURABLE**



**6X MORE
RESISTANT
TO MOLD AND
MILDEW***



*THAN OTHER FRP BRANDS

TYPICAL APPLICATIONS



Cold Stores



Food Plants



Kitchens



Cleanrooms



Hospitals



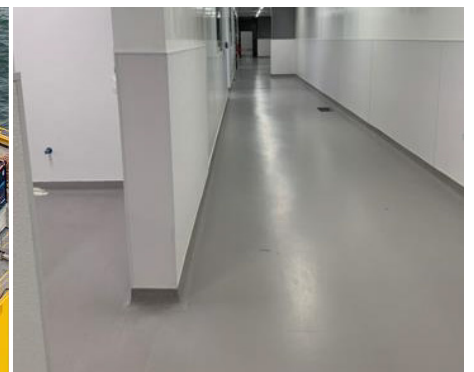
Supermarkets



**Educational
Facilities**



**Offshore
Accommodations**



**BOH
Corridors**

INDUSTRY CERTIFICATIONS



INDUSTRY COMPLIANCE

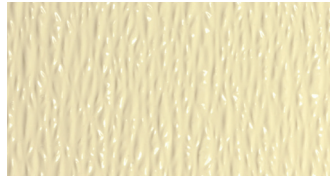


SURFACE COLOR OPTIONS

■ PEBBLED EMBOSSED TEXTURE



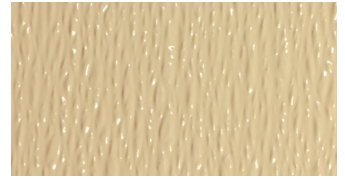
White | 85



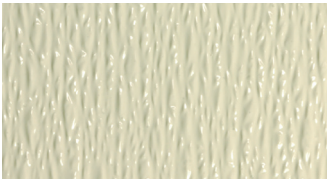
Colonial White | 83



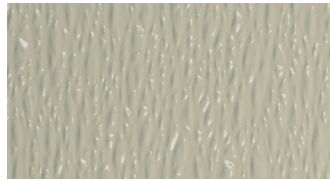
Ivory | 84



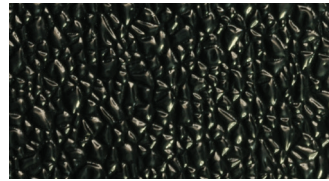
Soft Beige | 70



Silver | 66



Pearl Gray | 48



Black | 1201/97

■ SMOOTH TEXTURE



White | 85



Gray | 636*



Black | 1201*

*AVAILABLE IN CLASS C PER ASTM E-84 AND CAN/ULC-S102 ONLY

WHY GLASBORD® WITH SURFASEAL®?

- Setting the industry standard since 1954.
- The only FRP panel with ironclad technology patented by Crane Composites under the name of Surfaseal® thanks to the high fiberglass content and the Surfaseal® film.
- Ideal Hygienic Wall Cladding and Ceiling tiles for critical areas where both Hygiene and Durability are required .
- The Surfaseal® film makes Glasbord® easier to clean and up to 6 times more stain resistant than other FRP panels.
- UL GREENGUARD and HACCP certified.
- Fraunhofer® TESTED DEVICE certified for use in cleanrooms (Glasbord® smooth finish FM fire rated).
- Fire rated for flame spread and smoke development when tested per ASTM E-84: Class C and Class A.
- The only FRP panel with FM global certification for FM certified buildings.
- Available in 12 standard color with possibility to customize to any RAL color.

THERMOBREAK® BACKING

- 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.
- Thermobreak® is manufactured using proprietary physically crosslinked Polyolefin foam technology, invented and commercialised by the Sekisui Chemical group in Japan. The technology allows crosslinking of the Polyolefin without the use of chemical agents. Instead the Sekisui process utilises clean and precise crosslinking through irradiation (physical) means.
- Sekisui has been manufacturing crosslinked Polyolefin foam since 1967. Today Sekisui foam division is the largest and leading crosslinked polyolefin foam manufacturer in the world.

SUPERIOR THERMAL PERFORMANCE FOR ENERGY SAVINGS

Our 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 & SMOKE 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 VS OTHER SOLUTIONS

Compare Hygibreak to traditional PVC and Ceramic Tiles	PVC / Thermoplastic	<i>Hygibreak</i>	Ceramic Tiles
Cleanability	Retains food stains. Retains Graffiti.	Easiest to clean.	Surfaces are easy to clean, however grouted joints retain stains.
Hygiene	Pore free surface, Mold and Mildew free and will not support bacteria growth.	Pore free surface. high stain resistance. Mold and mildew free, does not support bacteria growth.	Will support bacteria, mold and mildew growth.
Chemical Resistance	Lower Chemical resistance, less likely to resist against continuous exposure to disinfectants and acid.	Highly chemical resistant.	Not resistant to disinfectants and to chemicals.
Impact Resistance	Less than 16% of the impact resistance protection compared to Hygibreak.	Highest impact resistance.	Low impact resistance, tiles frequently crack to impact.
Durability	Needs Periodic renewal. Non-reinforced thermoplastic panels display only 24% of the “stiffness” that Hygibreak panels provide.	Extremely long life, high stiffness thanks to high fiberglass content.	Needs periodic maintenance, tile replacement and regrouting to maintain appearance and hygiene.
Ease of Installation	Difficult to install due to large thermal expansion (up to 3x that of Hygibreak). Adhesives tend to “bead” and reduce spreadability.	Self adhesive, fastest and easiest product to install.	Extremely difficult and time consuming to install.
Cost of Ownership	Medium upfront cost, high maintenance cost.	Relatively low upfront cost, lowest cost of ownership.	Highest upfront cost and highest maintenance cost.

PROFILES AND ACCESSORIES

- Using industry leading manufacturers, Hygibreak has a large range of profiles and trims to accommodate the needs of your project. Solutions are available for all use cases, from heavy industrial food preparation where hygiene and extreme cleanability is needed, to lower profile front of house applications.

Profiles available: (PVC, Polypropylene)

- Division Bars
- Internal Corners
- External Corners
- Wall to Floor Base profile (high impact resistance)
- Wall to Ceiling Internal Corner
- End caps for panels

Speciality profiles:

- Rubber bump rail
- Column guard rails

Stainless Steel range is also available

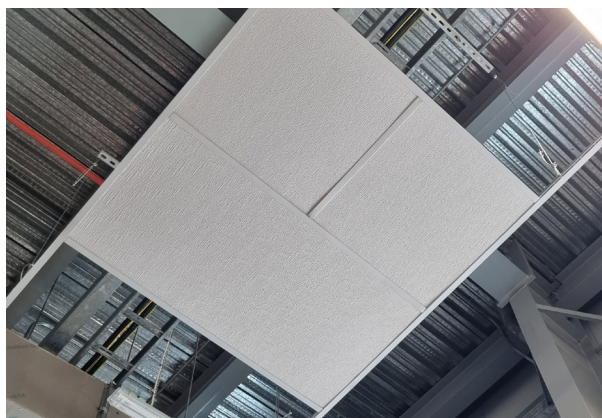


SUSPENDED CEILING SYSTEM

- Hygibreak suspended ceiling tiles are available for a unique, easy clean, insulating system.
- Using World renowned Suspension ceilings.
- Panels are backed with 12mm-20mm Thermobreak backing with Aluminium Foil facing to protect from above ceiling leaks and conditions.
- Can provide Acoustic insulation, with NRC values up to 0.9.
- Can provide fire rating up to 4 hours.

Suspension grids are available in 3 types:

- Standard
- High corrosion resistance
- Clean room specification



HYGIBREAK

PHYSICAL PROPERTIES

Composition	Glasbord® FRP Panel coated with Surfaseal® film backed with Thermobreak® physically crosslinked Polyolefin foam and peelable self adhesive layer.	
Thickness	From 4mm up to 70mm	
Size availability total composite	4mm-10mm 12mm-20mm 25mm-70mm	50m x 1200mm rolls 20m x 1200mm rolls 2300mm x 1200mm sheets
	*sheets can be cut to size as per requirement	

BACKING: THERMOBREAK® 4MM POLYOLEFIN FOAM

Material	Physically (irradiation) crosslinked closed cell Polyolefin foam
Density	25kg/m3 (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	-60 C ~ +55 C

SURFACE: GLASBORD® EMBOSSED 2.3MM CLASS C

Flexural strength	56 MPa
Flexural modulus	3034 MPa
Tensile modulus	4137 MPa
Tensile strength	33 MPa
Barcol hardness	27
Izod impact	0.59 J/mm
Gardner impact strength	3.4 J
Water absorption	<0.16 % v/v
Taber abrasion resistance (CS17 wheels,1000g, Wt 25 cycles)	0.01% max wt. loss

**other thicknesses of glasbord® are available upon request

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