

CRYSTAL HYGIENIC PANELS

HYGIENIC WALL & CEILING PANELS

Glasbord® Panel on PIR



CRYSTAL-HYGIENIC PANELS

HYGIENIC WALL & CEILING PANELS

Glasbord® Panel on PIR

PRODUCT DESCRIPTION

Crystal-Hygienic Panel is "all-in-one" system that offers the best hygienic performance combined with highest stain, impact and scratch resistance.

Glasbord® with Surfaseal® film pressed on Polyisocyanurate PIR, with Solid Surface back side

PIR Core can come in a variety of thicknesses, allowing it to be tailored to your own specific needs.

The back side is laminated by Aluminum Sheet, Silver, pebbled finish - 200 microns, this adds to its protective properties, while also providing a strong and easily-maintained outer layer protecting the PIR core from damage.

Our system is easy for maintenance, if one panel got damaged you can remove it and replace it easily.

PIR Core increases the Thermal conductivity (depends on thickness), also does not cause mold or mildew





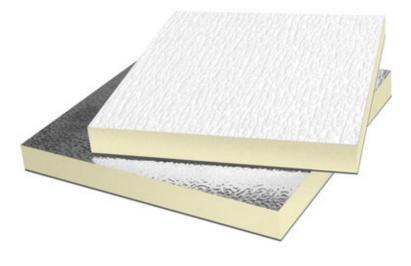






APPLICATIONS:

- Food and Beverage industry (meat processing industry, slaughterhouses, poultry, dairy industry, Fisheries, restaurants, Industrial kitchens etc...)
- Refrigerated warehouses / Cold Storage
- Pharmaceuticals industry / Clean Rooms
- Medical Device Assembly
- Healthcare/Hospitals
- Hotels / Schools / Public Buildings / Health Clubs
- Changing rooms, Toilets and Showers
- Research Labs / Biotechnology
- Car washes
- Prefabricated house walls
- Partition walls



BENEFITS

The surface is bright and clear as well as easy to clear its dirt and it has a good capacity to keep the color of surface to be bright and fresh.

The Surfaseal® film gives the product a good chemical stability to atmosphere, water, ordinary acid, alkaline & salt.

- HACCP certified
- Fire rated for flame spread and smoke development when tested per ASTM E-84. Available in Class C, Class A (UL) & FM
- UL GreenGuard Gold for low chemical emission and indoor air quality decreasing indoor pollution levels
- Lifetime non-corrosive surface
- Comply with the Food Safety and Inspection Service (FSIS)
- Unique Surfaseal® film found only on Glasbord® panels that provides highest stain resistance and ease of cleaning
- Chemical resistant including repetitive cleaning
- Moisture & humidity resistant, mold & mildew free
- Vapor barrier protection preventing transfer of spores
- Robust panel with resistance to impact and scratches
- Pore free surface, will not trap soil or bacteria
- Easy and guick to install with no mechanical fixation
- Good insulation characteristics
- Light Weight
- Non-absorbable surface

Its characteristics give the products many advantages, such as smooth surface, keeping bright and fresh color in long time, anti-corrosion & sunshine as well as anti-ageing.

CERTIFICATIONS:

FM APPROVED

GREENGUARD

USDA/FSIS

UI Certificate of Compliance



ASTM D3273/D3274

APPROVED Factory Mutual Approval



GREENGUARD Certification is part of UL Environment



US Department of Agriculture and Food Safety & Inspection Service

Hazard Analysis Critical

Mold or Mildew

PRODUCT SPECIFICATIONS

• **Structure:** FRP skin pressed on Polyisocyanurate PIR with Aluminum Sheet Back Side

• **Textures:** Embossed FRP Sheet 2.3 mm Smooth FRP Sheet 1.9 mm

• Size Options: 4'x8' (1.20 x 2.40 m) OR 4'x10' (1.20 x 3.00 m)

(You can ask for the availability of other sizes)

• Total thickness: 25 – 200 mm • Available Colors: White

• **Density:** 42 - 55 Kg/m3 • **Fire Retardant:** Class A / C

Note: This High-performance panels are used internally.

CRYSTAL HYGIENIC PANELS system has several benefits;

- Very easy and quick to install over the existing or new walls, where you can install 200-250 sqm./day, by only 4 workers
- Installation without stopping the workflow in the facility
- Panels with length up to 6 meter are available
- Easy to replace or maintain panels
- Does not reduce the area of the zone in which it is installed
- PIR Core increases the Thermal conductivity, also does not cause mold or mildew

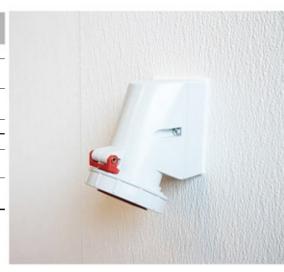




PHYSICAL PROPERTIES

Glasbord® with Surfaseal is a durable, flexible, interior wall panel of fiberglass Reinforced Plastic (FRP). The panel has a Class C rating for flame spread and smoke development. It will not mildew, rot, or corrode and exhibits excellent resistance to mild chemicals & moisture.

Property	Typical Value 2.3 Mm Thickness	Test Method
Flexural Strength	59 MPa	ASTM D790
Flexural Modulus	2413 MPa	ASTM D790
Tensile Strength	34 MPa	ASTM D638
Tensile Modulus	4137 MPa	ASTM D638
Barcol Hardness	35	ASTM D2583
Izod Impact Strength	0.37 J/mm	ASTM D256
Gardner Impact Strength	1.81 J/mm	ASTM D3029
Coefficient of Linear Thermal Expansion	29 ľm/m °C	ASTM D696
Water Absorption (%)	0.16%/24 hrs @250C	ASTM D570
Specific Gravity	1.8	ASTM D792
TR Value	0.018 hr m2 $^{\circ}$ C/kcal	ASTM D177
Surface burning characteristics	Class C	ASTM E84
Taber Abrasion Resistance (cs-17 wheels, 500 g. wt., 25 cycles)	0.038% max wt loss	Taber Abrader



DIFFERENT APPLICATIONS:



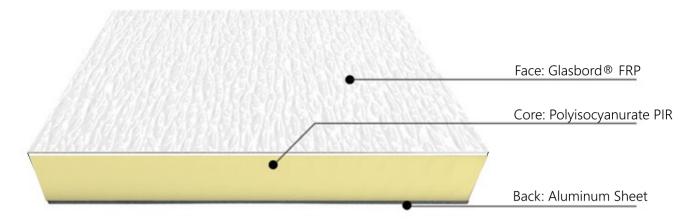






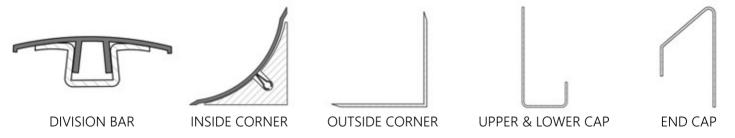
- Top hygiene through preventing the formation of condensation and mould and the adhesion of germs and bacteria.
- Effective ease of cleaning through pore-free surface treatment with Surfaseal®.
- The glassfibre-reinforced synthetic resin is impact- and corrosion-resistant as well as hardwearing high stability on exposure to acids and alkali.

PRODUCT STRUCTURE:

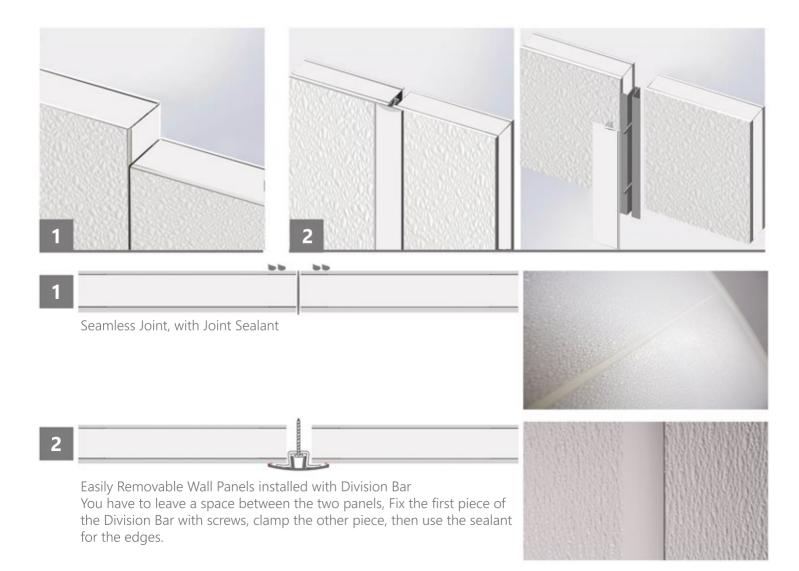


ASSEMBLY ACCESSORIES:

For professional looking panel installations, and maximum moisture sealing effectiveness, use accessories & moldings.



INSTALLATION:



ACCESSORIES AND MOLDINGS

ASSEMBLY ACCESSORIES

INSIDE CORNER



FEATURES

- Solid PVC support.
- PVC top with flexible lips for perfect adjustment.
- Easy assembly.
- Fastening system with hidden screws.

END PIECE



FEATURES

- Used as a cap at the end point
- Easy assembly.

INTERNAL COVE CORNER



FEATURES

- Internal piece provides a practical, smooth, neat and hygienic 3-ways corner
- Easy assembly.

EXTERNAL COVE CORNER



FEATURES

- External piece provides a practical, smooth, neat and hygienic outside corner
- Easy assembly.

PVC OMEGA PROFILE



FEATURES

- PVC Division Bar, consists of 2 pieces, base piece and cover piece.
- Easy assembly, you have to leave a space between the two panels, fix the first piece of Division Bar with screws, clamp the other piece, then use the sealant for the edges.

PVC COVED SKIRTING



FEATURES:

- Hygienic protection of wall panels
- Protection against water infiltration to the wall panels
- Avoidance of hollow spaces that can contain bacteria
- Skirting of the wall/floor and wall/kerb junction.

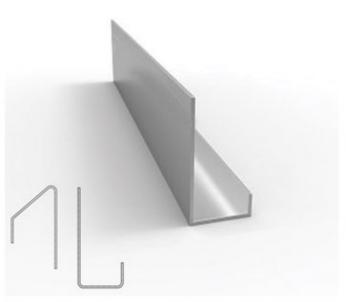
S.S OUTSIDE CORNER



FEATURES

- Stainless Steel Corner profile sized 50 x 50 mm for joining two corner Panels
- Easy assembly.

S.S UPPER & LOWER CAP



FEATURES

- Stainless Steel top & bottom base, to fix the panels inside
- Easy assembly.

MOLDINGS and ACCESSORIES

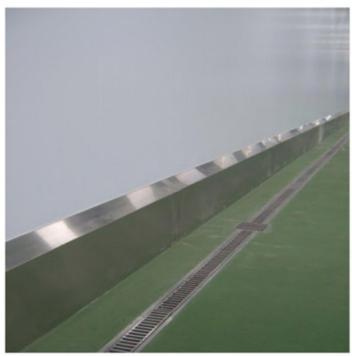
STAINLESS STEEL BOLLARDS



FEATURES

- Protection for sliding doors and gates, machines, etc...
- High quality stainless steel AISI 304 L (316 L on request)
- Extra solid by concrete core
- Safe / Robust / High-quality finish

STAINLESS STEEL KERBS



FEATURES:

- Hygienic & mechanical protection against heavy transport of wall panels in the food industry.
- Protection against water infiltration to the wall panels.
- Avoidance of hollow spaces that can contain bacteria.
- Application: Protection of panel walls against forklifts in production areas, refrigerators, despatch areas,...

STAINLESS STEEL SAFETY BARRIERS



FEATURES

- Protection for sliding doors and gates, machines, etc...
- High quality stainless steel AISI 304 L (316 L on request)
- Extra solid by concrete core
- Safe / Robust / High-quality finish

JOINT SEALANT



FEATURES:

- Elastic bonding between surfaces
- Fast curing and Good applicability and toolability
- Fungis resistant connection
- Resistant to high-pressure cleaning
- Good weather and UV resistance
- Excellent resistance to many chemicals

DIFFERENT APPLICATIONS:



KITCHEN AND CATERING



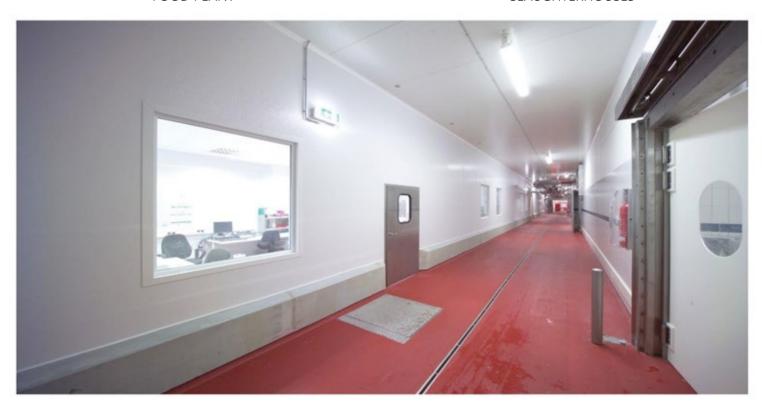
KITCHEN AND CATERING



FOOD PLANT



SLAUGHTERHOUSES



DIFFERENT APPLICATIONS:



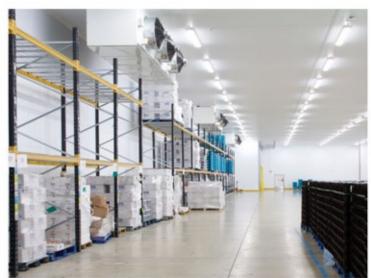
FOOD PRODUCTION



HOSPITAL KITCHEN



KITCHENS



COLD STORAGE

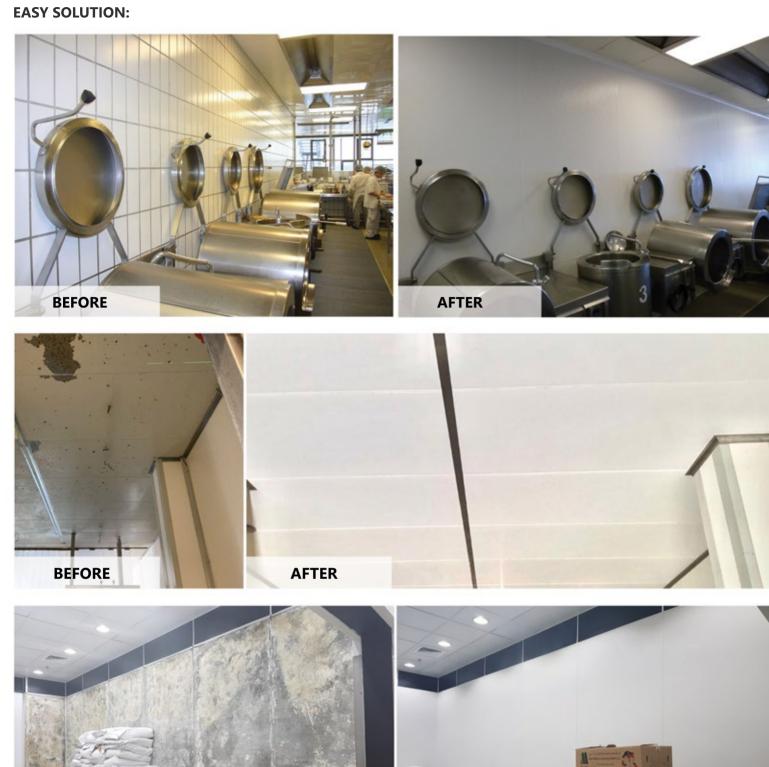


COLD STORAGE



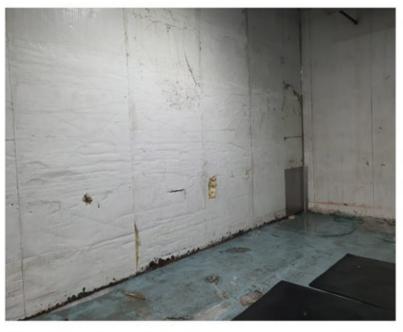
COLD STORAGE

BEFORE



AFTER

DAMAGED STEEL SANDWICH PANELS:

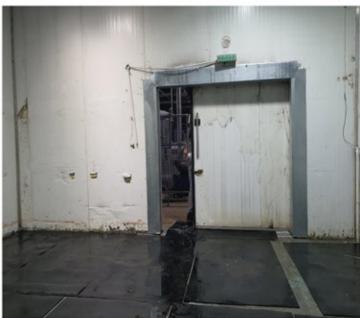












DAMAGED STEEL SANDWICH PANELS:















CRYSTAL-HYGIENIC PANELS

HYGIENIC WALL & CEILING PANELS

GOLDEN CRYSTAL BUILDING MATERIALS TRADING L.L.C

DUBAI - United Arab Emirates
Tel. +971 56 7659223
+962 79 662 8787

Email: fadi@goldencrystal.org www.crystal-sol.com