

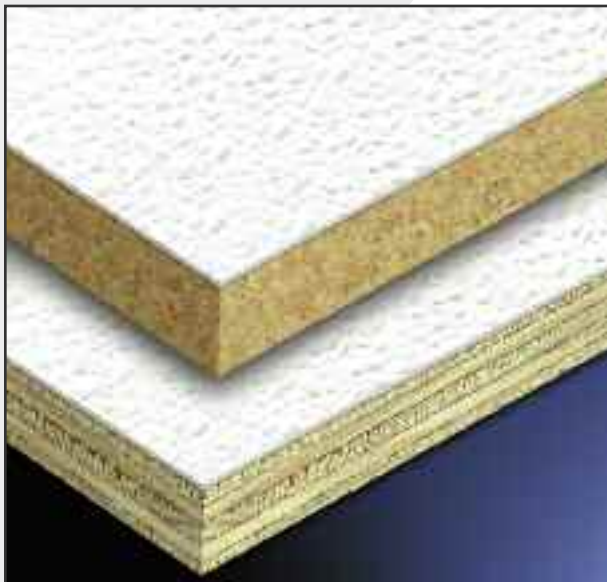
WALL, CEILING & LAMINATED LINER PANELS



 **Glasliner® FRP**

 **Exceliner® FRP**
WALL & CEILING LINER PANELS

 **Graham™**



Quality, commitment and innovation

Graham, with more than 50 years of experience, is one of the largest manufacturers of Fiberglass Reinforced Panels in the North American Market supported by three state-of-the-art manufacturing plants (all ISO 9001:2008 Certified) and three strategically located distribution centers. Our mission is to offer added value products with the highest quality standards, competitive pricing and best customer service of the industry.

Graham FRP meets many of today's demanding applications that require high sanitation needs. These applications range from restaurants and supermarkets to restrooms and storage areas. Graham's process uses a special type of high strength polyester resin combined with fiberglass reinforcement to produce liner panels offering superior quality and durability. The result is a panel with a resin rich surface that is tough, strong and easy to clean.



**The Best Products, Service, Price & Selection
All Under One Brand**

Exceliner® FRP

Wall, Ceiling & Laminated Liner Panels

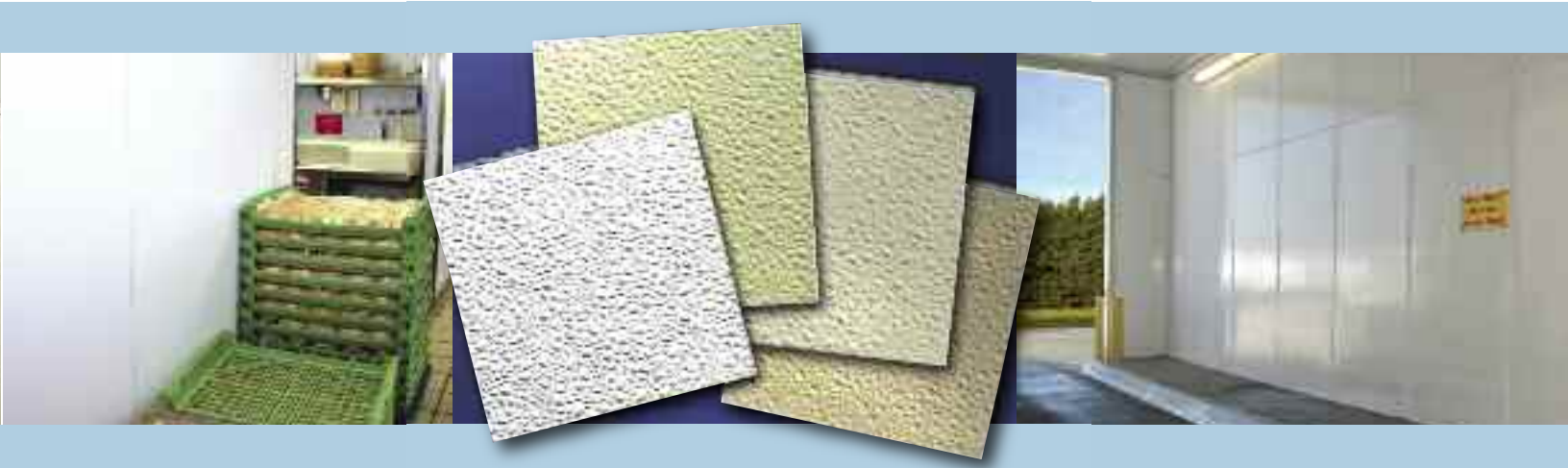
Resin rich surfaces that are tough, strong and easy to clean.

Maximum Sanitation Protection

- Meets CFIA and USDA Standards
- Maximum sanitation protection
- Significant cost savings over other materials

Excellent Quality

- Years of dependable performance
- Resin rich surface that is tough & easy to clean
- Meets today's high sanitation standards



Moisture Resistant

- Does not support mould or mildew
- Will not rust or corrode

Highly Impact Resistant

- Extremely high strength to weight ratio
- Tough surface that resists shattering, scratches and abrasions

Outstanding Cleanability

- Cleans with regular detergents and water

Wall Panel Specifications

Exceliner FRP is available in the following sizes:

Series	Nominal Thickness
1600	.125"
1200	.090"
180	.060"
160	.045"
150	.035"

Width Standard 4 Feet

Length 8, 9, 10 and 12 Feet

Low Cost Installation

- Easy to handle and install in any type of construction, and over any type of existing wall surface
- No special tools needed
- More economical than stainless steel or ceramic tile

Improved Chemical Resistance

- Resists stains
- Rust proof - will not corrode
- Minimum maintenance and never needs painting



Superior Flexibility

- Panels are flexible enough to lay flat, allowing a better fit into areas with close tolerance seams

Custom Designed Liner Panels

- Available in 5 different standard panel thicknesses
- Shipped in standard 4 foot width and in 8, 9, 10 and 12 foot lengths

Approvals & Certifications

- **ISO 9001:2008:** All Graham plants are ISO 9001:2008 Certified
- **Meets USDA/FSIS requirements**
- **Canadian Food Inspection Agency (CFIA) accepted**
- **ASTM:** All Exceliner FRP liner panels are manufactured according to industry standard ASTM D-5319-2008

- **Fire Ratings:** Exceliner products are available on multiple fire ratings, such as Class C (general purpose) and Class A (fire retardant). Please contact your Graham representative for test results.

Typical Physical Properties for .090" Contractor Grade

Property	Test Method	Unit	Graham Class C General Purpose MFCF Result	Graham Class A Fire Retardant FCN Result
Flexural Strength	ASTM D-790	PSI	17,000	10,000
Flexural Modulus	ASTM D-790	PSI	6.0 x 10 ⁵	3.1 x 10 ⁵
Tensile Strength	ASTM D-638	PSI	8,000	7,000
Tensile Modulus	ASTM D-638	PSI	9.43 x 10 ⁵	3.1 x 10 ⁵
% Elongation	ASTM D-638	%	1.20	1.80
Water Absorption 21 °C @ 72 hrs.	ASTM D-570	%	0.17	0.72
Izod Impact Strength	ASTM D-256	ft.-lbs./in.	7.0	7.16
Coef. of Linear Thermal Expansion	ASTM D-696	in./in./°F	2.22 x 10 ⁻⁵	2.39 x 10 ⁻⁵
Barcol Hardness	ASTM D-2583	Avg.	30	35
Specific Gravity	ASTM D-792	N/A	1.6138	1.5743
Abrasion Resistance	TABER	% WT Loss	0.293	0.391
Flash Ignition Temp.	ASTM 1929	°C	430	400
Self Ignition Temp.	ASTM 1929	°C	450	430
Flame Spread	ASTM E-84	N/A	≤200	≤25
	ULC S102	N/A	≤150	≤25



Storage Recommendations

- Store panels indoors in a cool, dry, well-ventilated area
- Panels should be stacked on skids not more than 5 skids high
- Do not allow moisture to collect on or in-between panels



Colour Selections



Bright White



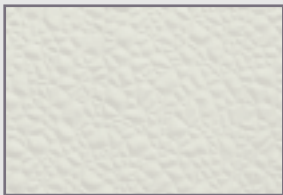
Almond



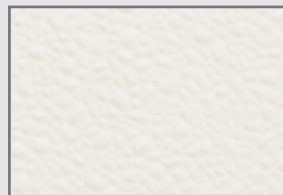
Ivory



Beige



Light Gray



Silver

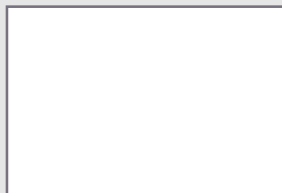


Black

Two Surface Finishes



Traditional
pebbled finish



Premium
Gel Coat

Installation Instructions

Safety:

- Use eye protection.
- Wear filter mask to cover nose and mouth, especially when cutting.
- Use manufacturer's recommended sealants and adhesives.

Tools Needed:

- Power or hand saw (fine tooth or carbide blade)
- Power or hand drill (carbide tip recommended)
- Carpenter's square
- Hammer, tape measure and level
- Adhesive and notched trowel
- Silicone sealant and caulking gun
- Vinyl mouldings and 3/4" nylon fasteners



Preparation:

- It is important to store Exceliner FRP flat, on a clean, dry surface for 24 hours before installation. It is preferable to store them inside the actual area of installation or, at least, under similar climate conditions.
- Walls must be clean and free of all substances.
- Level any high or low spots on walls. Concrete block walls may require a leveling coat of plaster or other similar material.

Installation of FRP Laminated Panels, in any application, should be approved by local building code officials before panels are ordered. Graham cannot ensure local code compliance in any or all situations. **NOTICE:** Panels and components made of fiberglass (FRP), wood, vinyl or foam may be combustible. **DISCLAIMER and LIMITATION of Liability:** The information contained in this literature is presented in good faith, and is believed to be accurate and reliable at time of publication. No representation, guarantee or warranty is made as to the completeness, reliability or accuracy of this information. This also includes NO IMPLIED WARRANTY OR MERCHANTABILITY OR FUNCTIONAL USE FOR SPECIFIC APPLICATION.

Cutting Exceliner FRP for Floor to Ceiling Heights of 8 Feet or Less:

- Subtract 1/2" from height measurement to allow for expansion.
- Allow for 1/8" expansion gap around pipes and other projections.

Drilling Fastener Holes:

- Pre-drill fastener holes before applying adhesive.
- Fastener holes should be slightly oversize to allow for normal expansion and contraction.
- Drill holes no further than 8" apart and 1" from outside edge, 16" apart on intermediate and on 16" centers.



Installation reminders:

1. Follow safety and fire guidelines during installation and use of panels.
2. First panel installed should be set true with plumb line.
3. Wall must be clean and flat.
4. Use mouldings, silicone, nylon rivets and adhesive for best installation.
5. Apply adhesive per manufacturer's instructions.
6. Install panels and mouldings.
7. Seal edges and mouldings.
8. Remove excess silicone.
9. Clean panels after installation with light detergent.

905-838-2944

Accessories



Inside Corner



End Cap



Divider Bar



Outside Corner



Outside Corner Angle



Nylon Rivets



FRP Adhesive

Applying Adhesive

- For best installation, combine adhesive and nylon fasteners.
- Exceliner FRP should never be installed on uneven walls using only adhesive.

Actual requirements may vary. Call Graham for complete installation instructions.

www.graham.com

Applications

- Food processing areas
- Restaurants
- Bathrooms
- Storage rooms
- Schools
- Hospitals
- Many other applications where sanitation is required

Easy to Install

- Cut to size for easy installation
- Lightweight and easy to handle

Minimal Deflection

- Panel formulation makes for a strong, rigid ceiling panel



Characteristics

- Moisture resistant - does not support mould or mildew
- Rust proof - will not corrode
- Stain resistant
- High strength-to-weight ratio
- Easily removable for cleaning

Ceiling Panel Specifications

Sizes 23 3/4" x 23 3/4"
23 3/4" x 47 3/4"

Thickness 0.100"

Finishes Textured or
Smooth

Colour Standard Colours

Sag Tolerance < 0.25"

Fire Rating

- Class C: General Purpose
- Class A: Fire Retardant

Laminated Panels

Why use Laminated FRP panels?

- Ease of installation
- Reduced labour costs
- Durable
- Sanitary
- Easily Maintained

FRP Panels are laminated to:

- Plywood
- OSB

Laminated Panel Specifications

Sizes 4' x 8' and 4' x 10'
 Substrate Thickness 3/8" standard
 Colour Bright White



Ideal for:

- Agricultural buildings
- Kitchens
- Restrooms
- Storage areas
- Laboratories
- Food processing plants
- Health care facilities
- Convenience stores
- Kennels and veterinary clinics
- Walk-in coolers and freezers

For other substrates, colours or sizes, please contact Graham.

Mouldings



3/8" Cap
(.460 opening)



3/8" Divider
(.460 opening)



3/8" ISC/Cove
(.460 opening)



3/8" OSC
(.460 opening)



1-1/4"
OSC Angle



1-1/4"
ISC Angle

The Best Products, Service, Price & Selection All Under One Brand

Independent Laboratory Test Results

REASON FOR ANALYSIS: Evaluation of the **White Glasteel FRP Panel** from the viewpoint of overall stain resistance properties as well as resistance to chemical cleaners and high intensity UV light.

EXECUTIVE SUMMARY: The **White Glasteel FRP Panel** demonstrates good overall stain resistance properties both before and after surface abrasion tests. In addition the **White Glasteel FRP Panel** demonstrates good resistance to high intensity UV light and general household cleaning chemicals such as bleach, ammonia, alcohol and acetone with no material degradation noted after exposure tests..

EVALUATION OF FINDINGS:

Stain Resistance Properties: The **White Glasteel FRP Panel** demonstrates good overall stain resistance properties on the original surface with all stains being removed after cleaning tests. The abraded surface demonstrates generally good stain resistance with only the ink stain remaining visible after cleaning tests. The stain resistance test consists of applying generous amounts of a variety of stains, including red fruit drink, ketchup, mustard and barbecue sauce as well as some very aggressive stains such as blue ink and permanent marker. These stains were applied to the original as received surface and to a surface which was abraded with sandpaper to remove any surface coatings. The stains were then allowed to set for a period of 48 hours. The stained areas were then cleaned with a variety of cleaning chemicals to determine overall cleanability. The ketchup, fruit drink and barbecue sauce were all easily removed with a typical household cleaner on both the abraded and original surfaces. The mustard and permanent marker did require use of a stronger chemical such as alcohol and acetone to fully remove the stains. It should be noted the blue ink stain was not completely removed on the abraded test surface when using all the listed cleaning chemicals.

UV Resistance: The **White Glasteel FRP Panel** exhibits no discolouration or other surface degradation after 60-hours of exposure to high intensity UV light.

Chemical Resistance: The **White Glasteel FRP Panel** surface showed no evidence of material degradation after exposure to household cleaner, ammonia cleaner, bleach (1% solution), alcohol (70% isopropyl) and acetone.



Before Stain Cleaning Test



After Stain Cleaning Test

All Glasliner FRP Products are Greenguard Certified

Improving Indoor Air Quality

What is GREENGUARD Certification?

Simply put, GREENGUARD Certification ensures that a product is low-emitting. Products carrying the GREENGUARD mark have been independently tested and re-tested to demonstrate that they meet GREENGUARD's rigorous third-party chemical emissions standards.

GREENGUARD's standards are based on established emissions criteria used by the U.S. Environmental Protection Agency (EPA), the State of California, Germany's Blue Angel Program and reputable public health agencies.



Why is Indoor Air Quality Important?

Whether inside a home, school, business or hospital, people expect their indoor environments to be healthy and safe. Unfortunately, indoor spaces are often filled with potentially harmful pollutants.

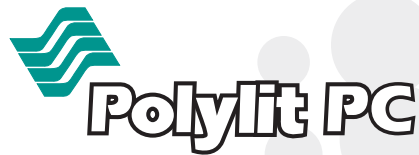
Volatile organic compounds (VOCs) are chemicals that are released into the air from everyday furnishings, building materials and products – items like furniture, flooring and cleaners. Once airborne, VOCs can be easily inhaled by building occupants and trigger a number of health problems.

Benefits of GREENGUARD Certified Products

- Furnishing your building with GREENGUARD Certified low-emitting products allows you to create a healthier indoor environment by improving the indoor air quality.
- GREENGUARD Certified products meet some of the most stringent chemical emissions requirements in the world. Products have been independently, scientifically screened for more than 10,000 chemicals, and they are regularly monitored and retested to ensure they comply with GREENGUARD's standards.
- Selecting third-party certified, independently tested products helps ensure you are choosing healthier products for your building (and the air you breathe).

For more information on creating a healthier indoor environment, go to www.greenguard.org and take the interactive tour on the Consumer page.

Additional Product Lines Offered by  Graham.



◀ **Scan the QR Code to Access our Website: www.grahamfrp.com**

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