Kemply® Laminated Wall and Ceiling Panels | KEM

Product

Kemply® Laminated Wall Panels are manufactured by laminating a fiberglass reinforced panel (FRP) "skin" to a substrate, such as oriented strand board (OSB), plywood, gypsum, fluted polypropylene, or aluminum composite core (ACP) and a variety of other materials. Ceilings are available in gypsum, fluted polypropylene and ACP substrates only.

Due to the fluctuation in substrate material costs, panels are quoted on a custom basis and quotes are valid for 30 days from date quoted unless otherwise negotiated.

Purpose

Kemply® Laminated Wall and Ceiling Panels are used in a variety of applications where a sturdy laminated wall or ceiling panel is required.

Kemply Laminated Panels

Substrate	Substrate Thickness	Available Sizes
Gypsum	1/2" | 12.7 mm 5/8" | 15.9 mm 3/4" | 19.1 mm	4' x 96" | 4' x 120" 23-3/4" x 23-3/4" | 23-3/4" x 48"
Plywood (BCX)	1/4" | 6.4 mm 1/2" | 12.7 mm 5/8" | 15.9 mm 3/4" | 19.1 mm	4' x 96" | 4' x 120" | 4' x 144"
Oriented Strand Board (OSB)	3/8" | 9.5 mm 1/2" | 12.7 mm 3/4" | 19.1 mm 7/16" | 11.1 mm (special order only)	4' x 96" | 4' x 120" | 4' x 144"
Fluted Polypropylene	.32" | 8.1 mm .4" | 10.2 mm	4' x 96" | 4' x 120" 23-3/4" x 23-3/4" | 23-3/4" x 48"
Aluminum Composite Core (ACP)	Single Sided .12" | 3 mm Single Sided .24" | 6 mm Double Sided .12" | 3 mm Double Sided .24" | 6 mm Kemply ACP is Class A Fire Rated	23-3/4" x 23-3/4" | 23-3/4" x 48"

Sanigrid® II Grid and Kemply® Laminated Ceiling Panel Sizes

Grid Size	Glasbord Laminated Panel Substrate Thickness			
	.12" | 3mm	**.24" | 6 mm**	**.32" | 8.1 mm**	**.4" | 10.2 mm**
A | 2' x 4' | 0.6 m x 1.2 m	23-3/4" x 48" 0.6 m x 1.2 m	23-3/4" x 48" 0.6 m x 1.2 m	23-3/4" x 48" 0.6 m x 1.2 m	23-3/4" x 48" 0.6 m x 1.2 m
B | 2' x 2' | 0.6 m x 0.6 m	23-3/4" x 23-3/4" 0.6 m x 0.6 m	23-3/4" x 23-3/4" 0.6 m x 0.6 m	23-3/4" x 23-3/4" 0.6 m x 0.6 m	23-3/4" x 23-3/4" 0.6 m x 0.6 m
C | 2' x 2' | 0.6 m x 0.6 m	23-3/4" x 24" 0.6 m x 0.6 m	23-3/4" x 24" 0.6 m x 0.6 m	23-3/4" x 24" 0.6 m x 0.6 m	23-3/4" x 24" 0.6 m x 0.6 m
Grid Size	**1/4" | 6.4 mm**	**1/2" | 12.7 mm**	**5/8" | 15.9 mm**	**3/4" | 19.1 mm**
A | 2' x 4' | 0.6 m x 1.2 m	23-3/4" x 48" 0.6 m x 1.2 m	23-3/4" x 48" 0.6 m x 1.2 m	23-3/4" x 48" 0.6 m x 1.2 m	Not Recommended for Ceiling Installations
B | 2' x 2' | 0.6 m x 0.6 m	23-3/4" x 23-3/4" 0.6 m x 0.6 m	23-3/4" x 23-3/4" 0.6 m x 0.6 m	23-3/4" x 23-3/4" 0.6 m x 0.6 m	
C | 2' x 2' | 0.6 m x 0.6 m	23-3/4" x 24" 0.6 m x 0.6 m	23-3/4" x 24" 0.6 m x 0.6 m	23-3/4" x 24" 0.6 m x 0.6 m	

Note: All substrates are available in ceiling panel sizes above.

FINISHED PANEL QUALITY

1. The FRP skin shall not delaminate from the substrate when edges are securely fastened to an adequate structural system, and when joints and edges are protected with a permanently flexible thiokol or silicone-like caulking compound and suitable vinyl or metal (aluminum or stainless steel) division bars.
2. The FRP skin shall be uniform and in good contact over the surface of the substrate.
3. Alignment between FRP skin and substrate will be to ±1/16" (1.5 mm) on any edge.
4. Adhesive squeeze-out on any panel will not exceed 1/16" (1.5 mm) on any edge.
5. The color of the FRP skin shall be a uniform white or as specified.
6. Panel weight will vary as a function of substrate thickness, density, and moisture content.
7. FRP dimensional tolerances* will be:
   Width: ±1/8" (±3.2 mm)
   Length: ±1/8" (±3.2 mm)
   Squareness: ±1/8" (3.2 mm) in 48" (1.2 m)
8. Tests show that variations in panel integrity will be due to the substrate, not the laminate or adhesive bond, even after exposure of the composite to temperature and humidity ranges from -40°F to 120°F (-40°C to 49°C) and from 10% RH to water immersion.

FIRE RATINGS AND PHYSICAL PROPERTIES

Due to the wide variation in skin-substrate combinations, the composite panels quoted have not been tested for physical properties or fire ratings per ASTM E-84, except for the laminated panels detailed below.

All of the FRP panel "skins" have been tested for surface burning characteristics per ASTM E-84 and each product has a published technical data sheet which can be found at www.cranecomposites.com.

Physical properties and fire rating information on the substrate may be available from the specific substrate manufacturer and available upon request.

Crane Composites makes no representation or warranty as to the composite laminate panel's fitness for any specific application, overall physical properties, fire resistance or burning characteristics.

The following composite laminated panels have been tested to ASTM E-84:
Class A Fire Rating: Flame Spread < 25, Smoke Development < 450

1. .075" Smooth Glasbord Class A (FSI) to .12" (3 mm) Aluminum Composite Core (ACP) single-sided skin
2. .075" Smooth Glasbord Class A (FSI) to .12" (3 mm) Aluminum Compostie (ACP) double-sided skins

GREENGUARD CERTIFICATION

This panel has earned GREENGUARD® SELECT Education and GREENGUARD® SELECT Healthcare Certification. (Certificate # 90154-03) www.greenguard.org.

FABRICATION AND INSTALLATION

Panels can be fabricated with the same tools and techniques as ordinary wood panels. Carbide-tipped tools are recommended. Eye protection and filter mask should be worn during cutting and trimming.

STORAGE

All laminated panels should be stored in a dry place indoors. Exposure to humid or wet conditions prior to installation can cause panel warping. Efforts to limit this exposure during storage can reduce this warpage. Standing water on the surface laminate during storage can cause discoloration.

SERVICEABLE TEMPERATURE RANGE

Panels will perform in temperatures from -40°F (-40°C) to 130°F (55°C). For use in environments beyond this range contact Crane Composites for recommendations.

LIMITATIONS

Near Heat Source: FRP panels will discolor when installed behind or near a heat source which radiates temperatures exceeding 130°F (55°C), such as cooker, ovens, and deep fryers. Do not install FRP laminated panels near a heat source.
In Areas of Extreme Temperature Fluctuation: (over 20°F/7°C), laminated panels with polypropylene substrate must be laminated on both sides to avoid warping and installed with mechanical fasteners.
Polypropylene Substrate: The intended use of laminated panels that use fluted polypropylene as a substrate is to line the walls or ceilings of car washes or in heavily washed areas in agricultural buildings. Installation of these panels in any application should be approved by the local building code officials before panels are ordered. Crane Composites cannot ensure code compliance.
Smooth Finish Panels: Panels with a smooth FRP face are shipped with a protective film to help avoid scratching. Remove the film prior to installation.
Lay-in Ceiling Panels: Lay-in ceiling panels with gypsum, plywood, oriented strand board or polypropylene substrates should be laminated with double-sided skins to avoid warping due to temperature or humidity changes.

CRANE COMPOSITES TESTING

Cleanability Test: When Glasbord with Surfaseal and an ordinary FRP panel are heavily soiled, the Glasbord panel exhibits up to 10 times more cleanability per MacBeth Computer Colorimeter.
Stain Resistance Test: Prolonged direct contact to concentrated ammonia-based cleaner exhibited no color change per MacBeth Color Colorimeter.

NOTICE

Panels will provide a clean, aesthetically-pleasing finished installation. However, by nature, fiberglass reinforced plastic paneling may occasionally have small areas that are aesthetically unacceptable for use. Panels should be inspected on-site prior to installation. If any portion of the material will not provide an acceptable appearance, Crane Composites should be notified at once. Upon verification of unacceptability, that portion of material will be replaced by Crane Composites. Crane Composites sole responsibility is for the replacement of defective material but not the labor or other handling or installation expenses.

FLAME SPREAD AND SMOKE DEVELOPMENT RATINGS
The numerical flame spread and smoke development ratings are not intended to reflect alleged hazards presented by Crane Composites products under actual fire conditions and this product has not been tested by Crane Composites except as set forth below. These ratings are determined by small-scale tests conducted by Underwriters Laboratories and other independent testing facilities using the American Society for Testing and Materials E-84 test standard (commonly referred to as the "Tunnel Test").
CRANE COMPOSITES PROVIDES THESE RATINGS FOR MATERIAL COMPARISON PURPOSES ONLY. Like other organic building materials (e.g. wood), panels made of fiberglass reinforced plastic resins will burn. When ignited, FRP may produce dense smoke very rapidly. All smoke is toxic. Fire safety requires proper design of facilities and fire suppression systems, as well as precautions during construction and occupancy. Local codes, insurance requirements and any special needs of the product user will determine the correct fire-rated interior finish and fire suppression system necessary for a specific installation. www.astm.org/Standards/E84.htm.

We believe all information given is accurate, without guarantee. Since conditions of use are beyond our control, all risks are assumed by the user. Nothing herein shall be construed as a recommendation for uses which infringe on valid patents or as extending a license under valid patents.

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Crane Composites is the manufacturer of Glasbord, Sequentia, Sanigrid II and a variety of other fiberglass reinforced plastic (FRP) composite wall panels. Inspired by the Kemlite tradition, Crane Composites has over 55 years of experience in Commercial Building Products and is a recognized industry leader in FRP applications.