

GREENGLASS®

a TempleInland product

Liner
Panels



Delivering elevated fiberglass protection
and the highest level of recycled content

Undeniable performance and unrivaled green building credits in one glass-faced gypsum liner panel.

Not only do new GreenGlass® fiberglass-faced gypsum liner panels provide maximum protection against mold, moisture, fire and unwanted noise – their unsurpassed level of recycled content can also contribute valuable credits to LEED and other green-building system certifications. Available in a one-inch thickness, a two-foot width and lengths to 12 feet, GreenGlass is designed for use in



elevators and mechanical/electrical shafts, stairwells and area separation walls. Its tough performance properties make it ideal for multi-family, townhomes, hospitals, offices, warehouses... basically any environment where protection is a priority. This addition to our GreenGlass product line is durable, versatile and sets a whole new standard for recycled content and green building. Now, that's what we call elevated product benefits.

Tough as expected. Green as it gets.

TempleInland®

**Performance you can bank on.
 Green building credits that add up.**

GreenGlass[®] is like no other glass-mat shaftliner or area separation wall panel out there. The high recycled content of GreenGlass is unmatched in the industry and contributes valuable credits to LEED and other green-building system certifications. Featuring an enhanced gypsum core sandwiched between naturally mold- and moisture-resistant fiberglass-mat facers, GreenGlass provides the excellent protection and durability you count on – plus an exposure warranty for up to 12 months.*

Mold and Moisture Resistance

GreenGlass is produced with the TemShield[®] Mold Protection System engineered into its gypsum core and is faced on both sides with naturally mold-resistant fiberglass mats. It scored a 10, the highest value possible when tested in accordance with ASTM D3273, the standard test for mold resistance. Its water absorption of less than 10 percent was tested in accordance with ASTM C473.

Note: The ASTM D3273 lab test may not be applicable to the actual performance of building materials. No material may be labeled mold proof, and resistance to mold growth depends on many factors. Prolonged exposure to moisture may cause mold and mildew to grow on any surface. Therefore, in order to maximize the mold and mildew resistance of a material, it is essential that good design, handling and construction practices be implemented. This involves avoiding water exposure during all phases of storage, handling, shipping, installation and after installation is complete. See GA-238 for more information.

Manufacturing Standards

GreenGlass liner panels are manufactured to comply with Federal Specification SS-L-30D, Type IV, Grade X, Class 1 and ASTM C1396 and ASTM C1658. GreenGlass is third-party certified by Underwriters Laboratories.

TYPICAL PROPERTIES	
Thickness	1"
Panel Sizes	2' x 8'; 2' x 10'; 2' x 12'
Edge	Double beveled
Weight	4.1 lb./sq. ft.
Water Absorption ¹	< 10%
Flame Spread ²	0
Smoke Developed ²	0
Flexural Strength ¹	80 / 230
Combustibility	Non

¹ ASTM C473; ² ASTM E84

CAUTION: GreenGlass contains glass fibers. See our website for more important details on handling to avoid contact and inhalation of these fibers.

***WARRANTY:** Temple-Inland offers a limited 12-month exposure warranty on GreenGlass liner panels subject to the terms, conditions and exclusions described on our website.



Fire Resistance

GreenGlass liner panels have been tested in accordance with ASTM E119 and therefore may provide a fire-resistance rating of two or more hours, depending upon the assembly in which it is applied. Please visit our website for a complete list of U.L.-approved assemblies and design details or contact your Temple-Inland representative.

Note: Because ASTM procedures require that fire tests be conducted on complete building assemblies/systems and not just on the gypsum board itself, the ability of any particular gypsum board to pass a specific ASTM fire test may well depend on factors other than the fire-resistance of the gypsum board being tested. These factors include the other components used to construct the building system being tested, the manner in which the system is constructed and the inherent variability of ASTM fire tests.

RECYCLED CONTENT CERTIFICATION

GreenGlass is SCS certified in accordance with ISO 14021 standards to have at least 90% recycled content on a dry weight basis.

LEED-NC CONTRIBUTION

The use of GreenGlass can contribute toward credits in these two LEED-NC certification categories:

MR credit 4 - Recycled Content - awards 1 or 2 points for using products with recycled content that constitute at least 10% or 20%, based on cost, of the total value of project materials.

MR credit 5 - Locally Produced Materials - awards 1 or 2 points for using materials that are extracted and manufactured within 500 miles that constitute at least 10% or 20%, based on cost, of the total value of project materials.

NAHB GREEN BUILDING STANDARDS

GreenGlass also contributes greatly toward N.A.H.B. Green Building Standard credits in the following certification category:

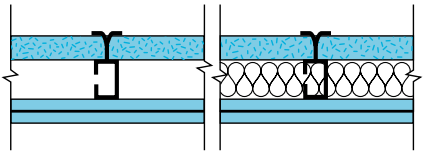
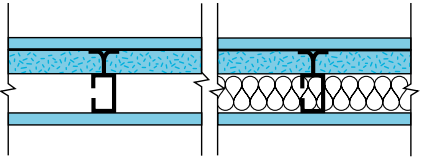
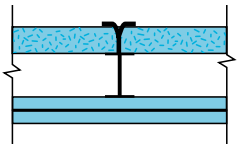
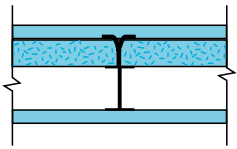
NAHB 604.1(2) - Pre-Consumer Recycled Content – specifies the use of recycled content products in major areas such as walls, floors, insulation and roofing.

Shaft Wall Assemblies

GreenGlass® 1-inch fiberglass-faced gypsum shaftliner is designed for use in vertical and horizontal shaft wall and stairwell systems where labor and material cost-efficiency and moisture resistance are important considerations.

It has been tested and approved for use in several popular system assemblies that provide a range of fire- and sound-resistant performance to meet various design requirements. Below are four assemblies that are commonly specified. For even more choices, visit our website or contact our Temple-Inland architect specialist.



<p>FR 2 HR. STC 50 TO 54</p>	<p style="text-align: center;">PROPRIETARY</p> <p>Shaft Walls</p> <p><i>Construction Type: Gypsum Board, Metal C-T or C-H Studs</i> 1" x 24" GreenGlass Type X gypsum panels* inserted between 2½" floor and ceiling J track with T section of 2½" C-T or C-H steel studs between proprietary gypsum panels. Two layers ½" Type TG-C gypsum board applied to face of studs. Base layer applied right angles to studs with 1" Type S drywall screws 24" o.c. and face layer applied parallel to studs with 1½" Type S drywall screws 12" o.c. Sound tested with 1⅞" glass fiber in cavity. (NLB)</p> <p>*1" GreenGlass Gypsum Liner Board</p>	 <p>Thickness: 3½" Limiting Height: Refer to mfg. Approx. Wt: 9 psf Fire Test: UL R7094, 93NK8151, 9-14-93 Design U428 Sound Test: RAL-TL93-181</p>
<p>FR 2 HR. STC 45 TO 49</p>	<p style="text-align: center;">PROPRIETARY</p> <p>Shaft Walls</p> <p><i>Construction Type: Gypsum Board, Metal C-T or C-H Studs</i> 1" x 24" GreenGlass Type X gypsum panels* inserted between 2½" floor and ceiling J track with T section of 2½" metal studs between the panels. One layer of ½" TG-C gypsum board applied parallel to each side of steel studs with 1" Type S drywall screws 12" o.c. Stagger joints each side. Sound tested with 1⅞" glass fiber in cavity. (NLB)</p> <p>*1" GreenGlass Gypsum Liner Board</p>	 <p>Thickness: 3½" Limiting Height: Refer to mfg. Approx. Wt: 9 psf Fire Test: UL R7094, 93NK8151, 9-14-93 Design U429 Sound Test: RAL-TL93-182</p>
<p>FR 2 HR.</p>	<p style="text-align: center;">PROPRIETARY</p> <p>Shaft Walls</p> <p><i>Construction Type: Gypsum Board, Steel I Studs</i> One layer 1" x 24" GreenGlass Type X gypsum panels* inserted between 2¼" floor and ceiling J runners with tab-flange section of 2½" steel I studs between panels. OPPOSITE SIDE: Base layer ½" Type TG-C gypsum board applied at right angles to studs with 1" Type S drywall screws 24" o.c. Face layer ½" Type TG-C gypsum board applied parallel to studs with 1½" Type S drywall screws 12" o.c. (NLB)</p> <p>*1" GreenGlass Gypsum Liner Board</p>	 <p>Thickness: 3½" Limiting Height: Refer to mfg. Approx. Wt: 9 psf Fire Test: UL R14196, 04NK4991, 2-10-04 Design V433 - System A</p>
<p>FR 2 HR.</p>	<p style="text-align: center;">PROPRIETARY</p> <p>Shaft Walls</p> <p><i>Construction Type: Gypsum Board, Steel I Studs</i> One layer 1" x 24" GreenGlass type X gypsum panels* inserted between 2¼" floor and ceiling J runners with tab-flange section of 2½" steel I studs between panels. One layer ½" Type TG-C gypsum board applied parallel to each side with 1" Type S drywall screws 12" o.c. (NLB)</p> <p>*1" GreenGlass Gypsum Liner Board</p>	 <p>Thickness: 3½" Limiting Height: Refer to mfg. Approx. Wt: 9 psf Fire Test: UL R14196, 04NK4991, 2-10-04 Design V433 - System B</p>

Area Separation Wall Assemblies

GreenGlass® is designed to provide sound control, structural strength and moisture and mold protection as a vital component of a firewall assembly with a total height up to 50 feet. Manufactured for lighter weight, improved fiberglass encapsulation and jobsite durability, it is perfect for cost-efficient application anywhere gypsum board can be installed.

Below are several popular system assemblies that provide a range of fire- and sound-resistant performance to meet different design requirements. For even more choices, visit our website or contact our Temple-Inland architect specialist.



<p style="writing-mode: vertical-rl; transform: rotate(180deg);">FR 2 HR. STC 60 TO 64</p>	<p style="text-align: center;">PROPRIETARY</p> <p>Area Separation Walls</p> <p><i>Construction Type: Gypsum Board, Steel H Studs</i> Two layers 1" x 24" GreenGlass Type X gypsum panels* inserted between 2" floor and ceiling runners with 2" steel H studs. One layer ½" regular gypsum board applied to face of studs. A ¾" minimum airspace must be maintained between steel components and adjacent framing (indicated by dashed lines in sketch). Sound tested with 2 x 4 stud wall faced with ½" regular gypsum board each side of assembly and 3½" glass fiber insulation in stud space on both sides. (NLB)</p> <p>*1" GreenGlass Gypsum Liner Board</p>	<p>Thickness: 4½" Limiting Height: Refer to mfg. Approx. Wt: 9 psf Fire Test: UL R1319, 89NK28786, 5-14-90 Design U375 - System A Sound Test: RAL-TL05-149</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">FR 2 HR. STC 60 TO 64</p>	<p style="text-align: center;">PROPRIETARY</p> <p>Area Separation Walls</p> <p><i>Construction Type: Gypsum Board, Steel H Studs</i> Two layers 1" x 24" GreenGlass Type X gypsum panels* inserted between 2" floor and ceiling runners with 2" steel H studs between adjacent pairs of gypsum panels. A ¾" minimum airspace must be maintained between steel components and adjacent framing (indicated by dashed lines in sketch). Sound tested with 2 x 4 stud walls faced with ½" regular gypsum board each side of assembly and 3½" glass fiber insulation in stud space on both sides. (NLB)</p> <p>*1" GreenGlass Gypsum Liner Board</p>	<p>Thickness: 4½" Limiting Height: Refer to mfg. Approx. Wt: 9 psf Fire Test: UL R1319, 89NK28786, 5-14-90 Design U375 - System B Sound Test: RAL-TL05-149</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">FR 2 HR. STC 45 TO 49</p>	<p style="text-align: center;">PROPRIETARY</p> <p>Area Separation Walls</p> <p><i>Construction Type: Gypsum Board, Metal C-T or C-H Studs</i> 1" x 24" GreenGlass Type X gypsum panels* inserted between 2½" floor and ceiling J track with T section of 2½" metal studs between the panels. One layer of ½" Type TG-C gypsum board applied parallel to each side of steel studs with 1" Type S drywall screws 12" o.c. Stagger joints each side. Sound tested with 1½" glass fiber in cavity. (NLB)</p> <p>*1" GreenGlass Gypsum Liner Board</p>	<p>Thickness: 3½" Limiting Height: Refer to mfg. Approx. Wt: 9 psf Fire Test: UL R7094, 93NK8151, 9-14-93 Design U429 Sound Test: RAL-TL93-182</p>



Certified to meet the CHPS performance standard for low-emitting materials.

Temple-Inland®

www.templeinland.com ▲ 800-231-6060