

DAMMON ENGINEERING, INC.

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January 24, 2008

K. B. Kaufmann & Co., Inc.
1019 Old Spanish Trail
Slidell, LA 70458
Attn: Dave Kaufmann
Via fax: 985.649.7679

**Re: Kaufmann Home Office
Densgold Substitution**

Dear Dave,

As per your recent request, I have reviewed the "DensGlass" Gold sheathing product as a substitute for plywood or OSB. It appears from the manufacturer's literature, copies attached, that it is suitable as a base for the stucco system and as a non-combustible material exposed in the attic.

Please confirm all this with the manufacturer and install in accordance with their instructions to achieve wind load resistance.

Call me if you have any questions.

Sincerely,

Robert Wiltse
Dammon Engineering, Inc.



HOME PRODUCTS SAFETY AND SUSTAINABILITY WHERE TO BUY PROJECT CENTER RESOURCES CONTACT

US

Category Overview

[DensArmor Plus® Paperless Drywall](#)

[DensArmor Plus® Abuse Guard® Paperless Drywall](#)

[DensDeck® Roof Boards](#)

[DensGlass Gold® Sheathing](#)

[DensGlass Silver® Sheathing](#)

[DensGlass Ultra® Shaftliner](#)

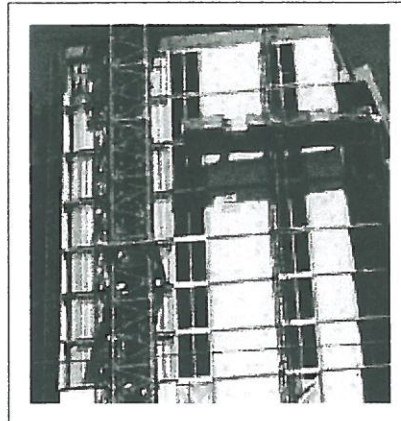
[DensShield® Tile Backer](#)

[Joint Treatment Systems](#)

[Textures and Plasters](#)

[ToughRock® Gypsum Board](#)

[Georgia-Pacific Canada - Produits de Gypse](#)



DensGlass Gold® exterior sheathing is the most popular exterior sheathing in the marketplace. The product features a fiberglass resistant core and enhanced fiberglass facings, to resist the effects of moisture and mold during construction. It is so weather-resistant that it has a 12-Month Weather Exposure Limit.

Recently-announced DensGlass Gold® exterior sheathing features enhanced fiberglass mats which offer even greater strength and make the product easier to handle, and reduce the need for vapor membranes.

This Georgia-Pacific sheathing is the ideal choice for exterior walls and other permanent claddings. It is a strong, durable material that is ideal for areas where you are concerned about construction schedules that might be delayed by adverse weather conditions. How building with Dens™ Brand paperless gypsum panels can allow construction teams to close in a structure, faster, visit buildpaperless.com.

WHERE TO BUY



Summary Specs/Submittals Assemblies/CAD Warranty Safety and Sustainability

Because of the superior performance of DensGlass Gold® sheathing, it is specified for exterior walls, ceilings and soffits in a wide variety of applications. These include exterior insulation and finish systems (EIFS); cavity brick or stone veneer applications; cladding systems such as wood siding, vinyl siding, composition siding, wood shingles, shakes, conventional stucco systems, plywood siding panels; and interior finish systems that require a substrate panel with superior fire and moisture resistance.

When tested, as manufactured, in accordance with ASTM D 3273, DensGlass Gold® paperless gypsum sheathing panels score a 10, the highest level of performance for mold resistance under the ASTM D 3273 test method.

The score of 10, in the ASTM D 3273 test, indicates no mold growth in a 4-week controlled laboratory test. The mold resistance of any building product when used in actual job site conditions may not produce the same results as were achieved in the controlled, laboratory setting. No material can be considered mold proof. When properly used with good design, handling and construction practices, DensGlass Gold sheathing provides increased mold resistance compared to standard paper-faced wallboard products.

DensGlass Gold exterior sheathing has been tested in accordance with ASTM E 330, which evaluates the structural performance of exterior building materials under uniform static air pressure differences, using a test chamber. **DensGlass Gold exterior sheathing can withstand winds in excess of 155 mph (Category 5 hurricane) when installed horizontally with the appropriate screw type and spacing over a properly engineered wall system and in accordance with the appropriate specifications.**



ICC Evaluation Service, Inc.
www.icc-es.org

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Regional Office ■ 900 Montclair Road, Suite A, Birmingham, Alabama 35213 ■ (205) 599-9800
Regional Office ■ 4051 West Flossmoor Road, Country Club Hills, Illinois 60478 ■ (708) 799-2305

Legacy report on the 2000 International Building Code®, the BOCA® National Building Code/1999, the 1999 Standard Building Code®, the 1997 Uniform Building Code™, and the 2000 International Residential Code®

DIVISION 09—FINISHES
Section 09250—Gypsum Board

G-P GYPSUM CORPORATION
2861 MILLER ROAD
DECATUR, GEORGIA 30035-4036
WEBSITE: www.gp.com/gypsum

1.0 SUBJECT

Dens-Glass® Gold Sheathing: 1/2 inch (12.7 mm) thick Dens-Glass® Gold Sheathing and 5/8 inch (15.9 mm) thick Dens-Glass® Gold Fireguard® Type X Sheathing

2.0 PROPERTY FOR WHICH EVALUATION IS SOUGHT

- 2.1 Equivalent performance to ASTM C 79 (gypsum sheathing)
2.2 Noncombustibility
2.3 Fire resistance
2.4 Structural (racking strength)

3.0 DESCRIPTION

Dens-Glass Gold sheathing is a noncombustible, resinous coated, glass fiber mat faced, water-resistant gypsum sheathing. Dens-Glass Gold is mechanically attached to structural framing as a single ply backing for exterior surfacing or wall covering materials on buildings of all construction types.

Dens-Glass Gold sheathing is available in two varieties; 1/2 inch (12.7 mm) thick Dens-Glass Gold Gypsum Sheathing and 5/8 inch (15.9 mm) thick Dens-Glass Gold Fireguard Type X Gypsum Sheathing.

Dens-Glass Gold sheathing is manufactured to conform to the applicable physical requirements of ASTM C 79 for gypsum sheathing board and has the following characteristics:

Table with 3 columns: Property, 1/2 inch (12.7 mm) thick Dens-Glass Gold Gypsum Sheathing, 5/8 inch (15.9 mm) thick Dens-Glass Gold Fireguard Type X Gypsum Sheathing. Rows include Thickness, Weight, Width, Length, Color, Edges, Core, Surfacing Face, Surfacing Back, R Value, and Permeance.

SI Units:
1 inch = 25.4 mm
1 foot = 304.8 mm
1 hr•ft²•°F/Btu = 0.176 m²•K/W
1 Perm = 57 ng/(Pa•s•m²)

ICC-ES legacy reports are not to be construed as representing aesthetics or any other attributes not specifically addressed, nor are they to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by ICC Evaluation Service, Inc., express or implied, as to any finding or other matter in this report, or as to any product covered by the report.



When tested in accordance with ASTM E 84, the Dens-Glass Gold sheathing demonstrated a flamespread index of 25 or less and a smoke-developed index of 450 or less.

When tested in accordance with ASTM E 136, the Dens-Glass Gold sheathing was determined to be noncombustible.

When tested in accordance with an ASTM E 119, $\frac{1}{2}$ inch (12.7 mm) thick Dens-Glass Gold sheathing demonstrated that it met the code requirements for use as a 15-minute thermal barrier for protecting foam plastics which might be installed as a part of an exterior wall covering assembly. When tested in accordance with ASTM E 119, $\frac{5}{8}$ inch (15.9 mm) thick Dens-Glass Fireguard Type X sheathing applied to a partition in a single-layer nail application on each face of load-bearing wood framing members provided a one hour fire resistance, thus qualifying it for the "Type X" designation of ASTM C 79.

4.0 INSTALLATION

4.1 General - Application to Wood Stud Walls and Metal Stud Curtain Walls

Installation of Dens-Glass Gold sheathing shall be in accordance with ASTM C 1280, *Application of Gypsum Sheathing*, the manufacturer's installation instructions, and this report. Exterior surfacings or wall coverings shall be provided over the Dens-Glass Gold sheathing as weather protection. Weather-resistant membranes (No.15 asphalt-saturated felt or other approved material) shall be provided over the Dens-Glass Gold sheathing before attaching such surfacings or wall coverings, when required by the applicable building code. Such coverings or surfacings are beyond the scope of this report.

The installation instructions within this report will govern, if there are any conflicts with the manufacturer's instructions. The manufacturer's published installation instructions and this report shall be strictly adhered to and a copy of these instructions shall be available at all times on the jobsite during installation.

4.2 Application to Wood Stud Walls (for Racking Resistance)

For resisting wind and seismic loads, the $\frac{1}{2}$ inch (12.7 mm) thick Dens-Glass Gold sheathing is assigned an allowable racking value of 99 plf (1.44 kN/m) when applied to wood stud walls as noted in the following paragraph. The maximum height-length ratio shall not exceed 1.5:1 to be considered as a shear wall segment. Marginal studs and plates shall be anchored to resist design forces. Shear walls using Dens-Glass Gold sheathing shall not be used to resist forces imposed by masonry and concrete walls. See Section 7.5 of this report for allowable load adjustments or restrictions applicable to certain seismic regions.

The Dens-Glass Gold sheathing shall be applied solidly to the wall with the long dimension in the vertical direction with all edges backed by framing members. Application shall be by the use of nails: 11 gauge, $\frac{7}{16}$ inch (11.1 mm) head, $1\frac{1}{2}$ inch long (38.1 mm) for $\frac{1}{2}$ inch (12.7 mm) thickness; and $1\frac{3}{4}$ inch (44.5 mm) long for $\frac{5}{8}$ inch (15.9 mm) thickness, spaced 4 inches (101 mm) o.c. on the edges and 8 inches (203 mm) o.c. at the intermediate supports. Nails shall have a minimum edge distance of $\frac{3}{8}$ inch (9.5 mm). The stud spacing shall not exceed 16 inches (406 mm) o.c. for $\frac{1}{2}$ inch (12.7 mm) thick Dens-Glass Gold sheathing and 24 inches (609 mm) o.c. for $\frac{5}{8}$ inch (15.9 mm) thick Dens-Glass Gold Fireguard Type X sheathing.

4.3 Application to Metal Stud Curtain Walls (for Transverse Wind Load Resistance)

For an allowable transverse wind load pressure of 21.7 psf (1.04 kN/m²), Dens-Glass Gold shall be installed with the long dimension in the vertical or horizontal direction, mechanically fastened to minimum 20 gauge steel framing. The stud spacing shall not exceed 16 inches (406 mm) o.c. for $\frac{1}{2}$ inch thick Dens-Glass and 24 inches (609 mm) o.c. for $\frac{5}{8}$ inch thick Dens-Glass. Fasteners shall be 1 inch to $1\frac{1}{4}$ inch (25.4 to 31.8 mm) long No. 6 Type S-12 bugle-head, self-tapping, rust resistant screws spaced 8 inches (203 mm) o.c. along the edges and 8 inches (203 mm) o.c. at the intermediate supports. Screws shall be a minimum edge distance of $\frac{3}{8}$ inches (9.5 mm).

5.0 IDENTIFICATION

Each bundle or package of Dens-Glass Gold sheathing shall bear the manufacturer's name and/or trademark, the NES logo and evaluation report number, NER-574 for field identification.

6.0 EVIDENCE SUBMITTED

- 6.1 Manufacturer's descriptive literature and installation instructions.
- 6.2 Report of physical and racking load tests conducted on $\frac{1}{2}$ inch (12.7 mm) thick Dens-Glass Gold sheathing, prepared by Timber Products Inspection, Project No. 85-03, Report No. 1, dated February 4, 1985, signed by Walter W. Boyles.
- 6.3 Report on various physical tests conducted on $\frac{1}{2}$ inch (12.7 mm) thick Dens-Glass Gold sheathing, prepared by Timber Products Inspection, Project No. 89-018, Report No. 1, dated June 21, 1989, signed by Walter W. Boyles and Franklin Holmes.
- 6.4 Test report in accordance with ASTM C 79, prepared by Timber Products Inspection, Project No. 86-08, Report No. 1, dated August 22, 1986, signed by Walter W. Boyles.
- 6.5 Test report in accordance with ASTM C 79, prepared by Timber Products Inspection, Project No. 89-018, Report No. 2, dated June 21, 1989, signed by Walter W. Boyles.
- 6.6 Test report in accordance with ASTM E 84, prepared by Commercial Testing Company, Report No. 32983, dated February 6, 1985, signed by Jonathan Jackson.
- 6.7 Test report in accordance with ASTM E 84, prepared by Commercial Testing Company, Report No. 67324, Test No. 2024-7678, dated May 5, 1989, signed by Jonathan Jackson.
- 6.8 Test report in accordance with ASTM E 136, prepared by Commercial Testing Company, Report No. 67576, Test No. 2075-9961, dated October 18, 1989, signed by Jonathan Jackson.
- 6.9 Test report in accordance with ASTM E 119, prepared by Commercial Testing Company, Report No. 32984, dated February 6, 1985, signed by Grady Gilbert, P.E.

- 6.10 Test report in accordance with ASTM E 119, prepared by Warnock Hersey International Inc., File No. WHI-495-0702 and WHI-495-0703, Job No. 495-0589, dated August 7, 1985, signed by George E. Meyer, P.E.
- 6.11 Test report in accordance with ASTM C 518, prepared by Commercial Testing Company, Report No. 32982, dated February 7, 1985, signed by Jonathan Jackson.
- 6.12 Report of wet racking tests conducted on 1/2 inch (12.7 mm) thick Dens-Glass Gold sheathing in accordance with ASTM E 72, prepared by Timber Products Inspection, Project No. 85-03, Report No. 3, dated June 24, 1985, signed by Walter W. Boyles.
- 6.13 Report of racking tests conducted on conditioned samples (95 °F and 50% RH) of 1/2 inch (12.7 mm) thick Dens-Glass Gold sheathing in accordance in accordance with ASTM E 72, prepared by Timber Products Inspection, Project No. 89-034, Report No. 1, dated September 22, 1989, signed by Walter W. Boyles.
- 6.14 Report of tests conducted in accordance with ASTM E 96, prepared by Timber Products Inspection:
- Report No. 93-017, dated October 25, 1993, signed by Steve Standell and Diane Michael.
 - Report No. 94-017, dated July 14, 1994, signed by Steve Standell.
- 6.15 Report on testing conducted in accordance with ASTM E 330, prepared by Timber Products Inspection, Project No. 89-047, dated January 12, 1990, signed by Walter W. Boyles.

7.0 CONDITIONS OF USE

The ICC-ES Subcommittee for the National Evaluation Service, Inc. finds that Dens-Glass Gold sheathing is an acceptable alternative material, product or method of construction to those specified in the 2000 *International Building Code*®, the *BOCA National Building Code/1999*, the 1999 *Standard Building Code*®, the 1997 *Uniform Building Code*™, and the 2000 *International Residential Code*® subject to the following conditions:

- 7.1 The installation instructions given in this report and those published by G-P Gypsum shall be strictly adhered to.
- 7.2 The Dens-Glass Gold sheathing shall be protected from weather by an exterior surfacing or covering material approved by the local building official. No exterior surfacing or covering listing is granted or implied by this report.
- 7.3 Dens-Glass Gold sheathing shall not be used as a nailing base and any mechanical attachments of exterior coverings shall be made directly to the studs.
- 7.4 Exterior surfacings may be adhered to Dens-Glass Gold sheathing when approved by the local building official. When the Dens-Glass Gold is not covered by wall covering mechanically attached directly to the studs, structural calculations, signed and sealed by a registered design professional, shall be

submitted to the building official documenting that the Dens-Glass® Gold sheathing and its fastening methods are adequate under wind loads of the applicable building code.

Exception: When installed to steel framing as noted in Section 4.3 of this report, Dens-Glass Gold is permitted in applications where design wind pressures do not exceed 21.7 psf (1.04 kN/m²).

- 7.5 Exterior stud walls shall be braced as required by the applicable code.

Exception: In seismic regions where the applicable building code permits the use of shear walls constructed using gypsum sheathing, wood stud walls employing 1/2 inch (12.7 mm) thick Dens-Glass Gold sheathing are permitted to be designed as engineered shear walls in accordance with the provisions of this report. Any reductions in the allowable loads for gypsum sheathing employed in certain seismic regions which are noted in the applicable building code shall be applied to the allowable load noted in this report.

- 7.6 Dens-Glass Gold sheathing shall be kept dry prior to installation, stored off the ground and under protective covering. Should the boards become wet, they shall be allowed to dry prior to installation. Once installed, the Dens-Glass Gold sheathing shall be covered with an exterior surfacing or covering.

- 7.7 This report is subject to periodic re-examination. For information on the current status of this report, contact the ICC-ES.