### DensGlass™ Exterior Sheathing: International Building Code (IBC) and Air and Water-Resistive Barriers —Update

Effective January 2006, the IBC code requirements for air and water-resistive barriers were revised (Section 1404.2 Water-Resistive Barrier). The model building code now requires a water-resistive barrier over exterior sheathing products. The ICC-ES (International Code Council Evaluation Services) has established acceptance criteria for water-resistive barriers, such as sheet goods and liquid applied products, and tests their integrity and serviceability to help ensure protection from the weather.

Prior to the introduction of these new code requirements, Georgia-Pacific Gypsum had short- and long-term joint treatment recommendations to protect against air and water penetration. These included application of sheathing tapes, caulks and sealants when a barrier against wind, air infiltration or water penetration was required by the designing authority. To reflect the current code requirements, we have updated and changed our literature. The DensGlass™ Exterior Sheathing applicator should consult the barrier manufacturer for joint treatment recommendations that are compatible with the barrier being used. Our current recommendations follow.

# **DensGlass Exterior Sheathing with Air, Vapor and Water-Resistive Barriers**

Dens Glass Exterior Sheathing is a superior substrate for a wide variety of air, vapor and water-resistive barrier systems and may be used with:

- #15 asphalt felt, ASTM D 226, type 1 or equivalent
- Synthetic wraps such as Tyvek<sup>®</sup>, Typar<sup>®</sup> MetroWrap<sup>™</sup>, ASTM E 1677 or equivalent
- Liquid- or fluid-applied air or vapor barriers such as Tremco ExoAir<sup>™</sup> 120, Grace Perm-A-Barrier<sup>®</sup> VP, Henry Air Bloc<sup>™</sup> 32 or Carlisle Barriseal<sup>®</sup>
- Water barrier systems such as Sto Guard<sup>®</sup> as manufactured by Sto Corp., Dryvit's Backstop<sup>®</sup> NT, Prosoco R-GUARD<sup>™</sup> or equivalent
- Asphalt based coatings
- Self-adhering membranes
- Weather-resistive barrier and drainage membranes such as DELTA-DRY®.

Some water-resistive barriers require the treatment of joints and sealing of fasteners. This may include the use of self reinforcing tapes and spray or trowel applied flexible joint treatment to bridge sheathing joints and openings. Always follow the manufacturer's installation recommendations for use with DensGlass Exterior Sheathing, local building code requirements and the design authority's specifications.





# **DensGlass Exterior Sheathing Air and Water Infiltration—Testing Background**

Georgia-Pacific Gypsum has tested DensGlass Exterior Sheathing for air and water infiltration using ASTM standards E283 and E331 respectively. To demonstrate the panel's ability to act as a water repellent sheathing, the joints and nail heads were treated with materials commonly being specified and used on job sites. Materials tested were silicone based caulks and water based exterior grade caulks with reinforcing mesh tape.

In these tests, DensGlass Exterior Sheathing had successfully impeded the flow of air and water. Although DensGlass Exterior Sheathing is not the final cladding, it has been used as a water repellent sheathing in a properly designed and constructed wall system under claddings such as brick, various sidings, conventional stucco and Exterior Insulation and Finish Systems (EIFS).

Designers and consultants can use this data to incorporate DensGlass Exterior Sheathing, along with their selection of flashing materials and details, into their water-resistive barrier design, if local building codes still prescribe to older standards.

This test data was useful in previous building codes, however, today's updated building codes require code approved water barriers to be installed over water repellent sheathings. In addition, to avoid incompatibility between sealants and the barrier systems, Georgia-Pacific Gypsum defers recommendations to the barrier manufacturer.

There are companies that provide full water-resistive barrier systems over DensGlass™ Exterior Sheathing that comply with current building code requirements. These include but are not limited to: Carlisle, Dryvit, DuPont, W.R. Grace & Co., Henry Company, Prosoco Inc., Sto Corp., Tremco and Typar.

## **DensGlass™ Exterior Sheathing Limited Warranty Information**

It is not required to provide a water-resistive barrier over DensGlass Exterior Sheathing for the protection of the gypsum sheathing itself during the 12-month weather exposure limited warranty. Consult with local building code, design professional, owner or cladding manufacturer for water-resistive barrier requirements and compatibility with the wall cladding. All penetrations should be protected to prevent air and water infiltration. Follow building code, door/window manufacturer's, or design authority's recommendations for flashing around openings, abutments to dissimilar materials and wall terminations.

With a 20-year history and billions of feet installed, DensGlass Exterior Sheathing is the proven performer in commercial exterior sheathing applications and remains the ideal substrate for today's commonly used air and waterresistive barriers often specified in exterior wall assemblies. DensGlass Exterior Sheathing is a patented, unique fiberglass mat sheathing panel engineered with a moisture-resistant treated core surfaced with a GOLD-colored, bond-enhancing primer coating. DensGlass Exterior Sheathing was created to withstand normal weather and moisture exposure for up to 12 months. DensGlass Exterior Sheathing can be used in Exterior Insulation and Finish Systems (EIFS). DensGlass Exterior Sheathing resists the growth of mold when tested, as manufactured, per ASTM D 3273.

DensGlass Exterior Sheathing inspires confidence in architects and contractors with its history of proven performance. Georgia-Pacific Gypsum backs the track record of DensGlass Exterior Sheathing with a limited warranty:

- Up to twelve months of coverage against in-place weather exposure damage
- A five-year limited warranty against manufacturing defects
- A 10-Year Substrate Limited Warranty in architecturally specified EIFS

For warranty terms, conditions and limitations or for more information, visit our Web site at www.gpgypsum.com.



#### SALES INFORMATION AND ORDER PLACEMENT

U.S.A. Midwest 1-800-876-4746 West 1-800-824-7503 South: 1-800-327-2344 Northeast: 1-800-947-4497

CANADA Canada Toll Free: 1-800-387-6823
Quebec Toll Free: 1-800-361-0486

#### **TECHNICAL INFORMATION**

Georgia-Pacific Gypsum Technical Hotline U.S.A. and Canada: **1-800-225-6119** www.gpgypsum.com

#### **TRADEMARKS**

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## UPDATES AND CURRENT INFORMATION

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## LIMITATION OF REMEDIES AND DAMAGES

Unless otherwise stated in our written warranty for these products, our sole liability for any product claim shall be

limited to reimbursement of the cost of repair or replacement of the affected product, up to a maximum amount of two times the original purchase price for the affected product. We shall not be responsible under any circumstances for lost profits, damage to a structure or its contents, or indirect, incidental, special or consequential damages. Claims shall be deemed waived if they are not submitted to us in writing within ten (10) days after discovery of a product defect/ circumstance giving rise to a claim.

# CAUTION: For product fire, safety and use information, go to gp.com/safetyinfo.

#### HANDLING AND USE

CAUTION: This product contains fiberglass facings which may cause skin irritation. Dust and fibers produced during the handling and installation of the product may cause skin, eye and respiratory tract irritation. Avoid breathing dust and minimize contact with skin and eyes. Wear long sleeve shirts, long pants and eye protection.

Always maintain adequate ventilation. Use a dust mask or NIOSH/MSHA approved respirator as appropriate in dusty or poorly ventilated areas. For additional product fire, safety and use information go to www.gp.com/safetyinfo or call 1-800-225-6119.

#### FIRE SAFETY CAUTION

Passing a fire test in a controlled laboratory setting and/or certifying or labeling a product as having a one-hour, two-hour, or any other fire resistance or protection rating and, therefore, as acceptable for use in certain fire rated assemblies/systems, does not mean that either a particular assembly/system incorporating the product, or any given piece of the product itself, will necessarily provide one-hour fire resistance, twohour fire resistance, or any other specified fire resistance or protection in an actual fire. In the event of an actual fire, you should immediately take any and all actions necessary for your safety and the safety of others without regard for any fire rating of any product or assembly/system.