

# Protect Every Building with **StoGuard**<sup>®</sup>



Smart ideas for specifiers of fluid-applied air and moisture barrier products

**sto**



# Use Beneath Claddings in All Climate Zones

## The StoGuard® System benefits every type of building

Today, building codes, owners and tenants require greater energy efficiency and comfort. To satisfy that demand, the building science experts at Sto® have developed the StoGuard® System to offer an advanced air and moisture barrier solution for use under claddings in all climate zones.

The StoGuard System integrates a complete array of compatible products:

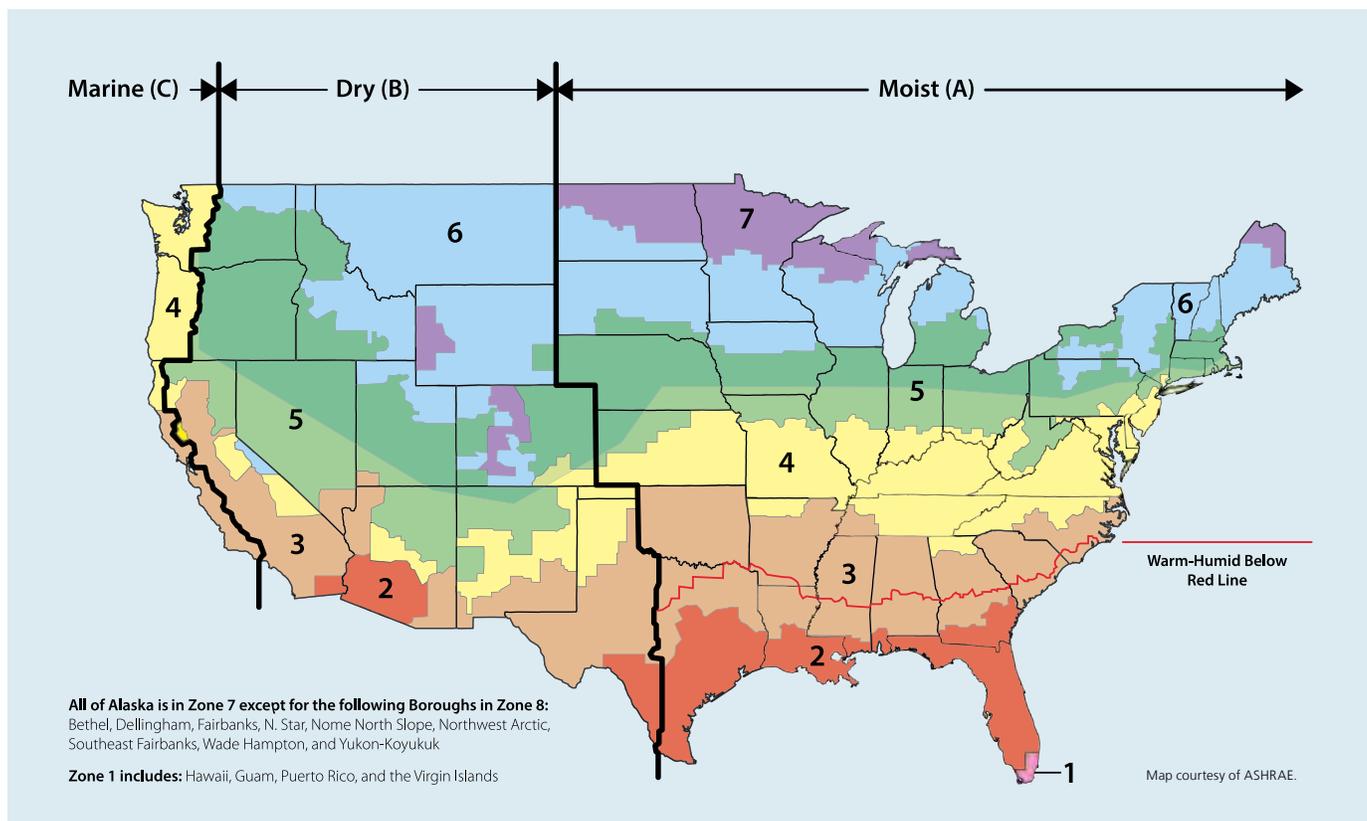
- **Fluid-applied air/moisture and vapor barriers** for use with all types of above-grade claddings and wall substrates.
- **Trowel-applied air/moisture barrier and adhesives** for above- and below-grade walls and for attaching continuous insulation.

- **Joint treatments/rough opening protections/transition materials.**

- **Pre-formed drainage mats** to help remove water and promote drying.

As an integrated, stand-alone system, StoGuard components work together to form a waterproof air barrier for all types of vertical, above-grade wall surfaces. It's a combination of products engineered for fast, easy application—developed from our experience in manufacturing air and moisture barriers since 1985 and introduction of the StoGuard System in 2000. Today, it's all backed by industry-leading Sto warranties for use under most types of exterior cladding.

The StoGuard System employs formulations suitable for every climate, protecting buildings from water infiltration in high rainfall regions, water vapor drive and unwanted air movement in all regions.



# Formulated for a Wide Array of Claddings

## What the StoGuard® System does for different wall constructions



### For absorptive cladding types

Works behind porous cladding materials providing backup protection to resist water penetration into the wall in the event water gets through the cladding.



### For steel- OR wood-frame construction

Protects joints and rough openings behind all types of claddings in either steel-frame or wood-frame wall construction.



### For continuous insulation

Complies with energy codes for air leakage resistance by providing an air barrier beneath continuous insulation.



### For "green" buildings

Meets energy code and durability requirements for all types of walls with a complete system that provides an air and moisture barrier, drainage and drying.



### For CMU and concrete construction

Provides vapor permeable or impermeable moisture protection with easy-to-apply sprayed, rolled or troweled material.



# Build Success with a Complete System

## Seamless protection for the entire wall assembly

Controlling air leakage through the building envelope is critical to achieving high building energy efficiency. In fact, research has proven that air barriers can play a larger role in energy efficiency than increasing insulation thickness.\* But unlike building wrap barriers that are penetrated by staples and fasteners for their attachment, the StoGuard® System provides seamless control over air and moisture to improve building performance and occupant comfort. To create seamless protection, each part of a wall construction is covered by a StoGuard product:

### Permeable and impermeable fluid-applied air and moisture barriers

**Sto Gold Coat®:** A fluid-applied, vapor-permeable membrane used under adhesively attached continuous insulation to create a continuous air and moisture barrier for gypsum and wood-based sheathings or CMU.

**Sto EmeraldCoat®:** A fluid-applied, vapor-permeable building membrane used under a variety of mechanically attached claddings, including cement board, wood, vinyl, brick, stone and metal panels.

**StoGuard VaporSeal®:** A fluid-applied vapor barrier used to provide superior protection against moisture intrusion and air leakage (Photo 1).

**Sto AirSeal®:** A fluid-applied, vapor-permeable membrane designed for CMU and sheathing, as well as metal panels, cement board, vinyl, wood, brick and stone.

### Sheathing joint treatments

**StoGuard RapidFill™:** A one-component waterproof air barrier used to provide sheathing joint treatment and protection (Photo 2).

**StoGuard Fabric:** A non-woven cloth reinforcement that is used with Sto Gold Coat, Sto EmeraldCoat or StoGuard VaporSeal to treat sheathing joints and rough openings. Available in 4- and 6-inch widths.

**Sto Gold Fill®:** A flexible, trowel-applied material that is applied over StoGuard Mesh, which is available in 4.25-inch mesh width for sheathing joints and 9.5-inch mesh width for rough openings.

### Waterproof transition membranes

**StoGuard Transition Membrane:** A flexible membrane for detail areas to provide flexible connections and continuity of the air barrier assembly. Also functions as a secondary weather seal at joints in construction.

### Rough opening protection

**StoGuard RapidSeal™:** A one-component waterproof air barrier for rough opening protection. Rapid drying time usually allows same day installation of windows or top coating with other wall assembly components.

**StoGuard RediCorner™:** A preformed fabric piece that speeds installation for corners of rough openings. Used with either Sto Gold Coat, StoGuard VaporSeal or Sto EmeraldCoat (Photo 3).



\* Energy Conservation Benefits of Air Barriers StoGuard: The Effect on Energy Conservation, By Chris Norris, P.E, P.Eng, LEED AP, CEI

# Covers Each Element of Wall Construction

## StoGuard® products for transitions, joint treatments and rough opening protection

	Gold Fill and Mesh	StoGuard Fabric	RapidFill	RapidSeal	StoGuard Transition Membrane
Sheathing joints or static joints and seams in construction	✓	✓	✓		
Corners	✓	✓	✓		
Rough openings	✓	✓		✓	
Transition to flashing and most service penetrations	✓	✓	✓	✓	✓
Dynamic and static joints and seams in construction, transition to foundation					✓

## Get all the benefits of the StoGuard® System

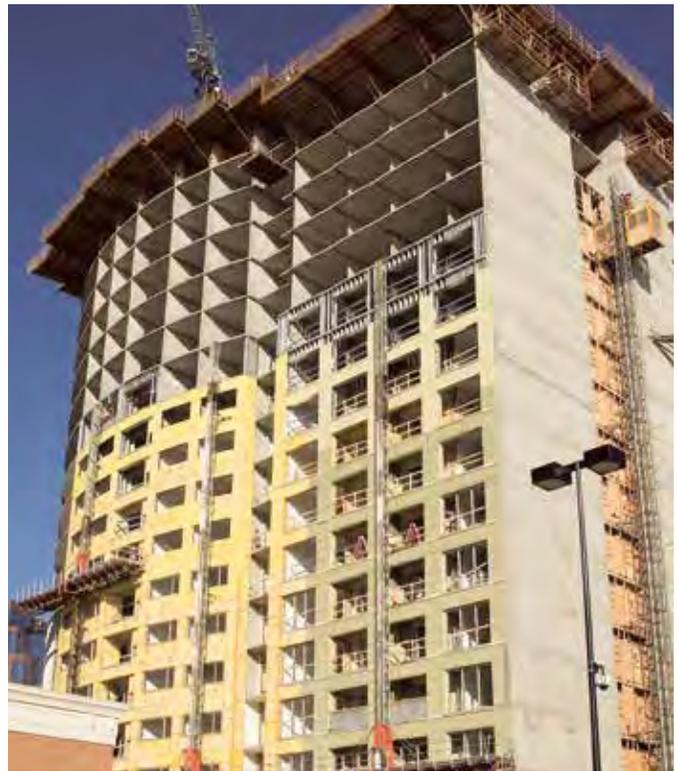
Benefit	Feature
<b>Reduces unwanted air movement and reduces energy costs</b>	StoGuard air barriers minimize airflow through the wall that can cause condensation and add to heating/cooling load. Exceeds ICC requirements for air barrier materials.
<b>Minimizes risk of water damage</b>	StoGuard waterproof membrane protects walls and components behind cladding and exceeds ICC requirements for WRBs (water-resistive barriers).
<b>Fire tested</b>	StoGuard materials are fire tested for use on non-combustible type construction (refer to Sto Specifications and Details for products tested and ICC-ESR 1233).
<b>Tear proof and weather resistant</b>	StoGuard materials attached to sheathing or CMU exhibit high elongation and exceed ICC ES racking resistance requirements.
<b>Safer, low-VOC composition</b>	StoGuard water-based formulas meet strict SCAQMD and LEED VOC requirements.
<b>Hassle-free installation</b>	StoGuard spray-on application with standard airless pump eliminates the need for special equipment and handling of large sheets or rolls.
<b>Accelerates schedules</b>	StoGuard System is easy to install and has different products formulated to address cold and wet weather conditions.
<b>Mold and mildew resistance</b>	StoGuard resists growth of mold and mildew.

# Backed by Building Science Experts

## Benefit from our value-added services

Your reputation is your most valuable asset. You deserve to be fully backed to protect it—and your wall-construction project. As the leader in integrated exterior wall systems, Sto® brings together the elements you need to succeed—building science expertise, application know-how, advanced materials, building code and regulation insight—all in a single source. Our smart approach includes:

- Providing complete support—from technical bulletins to application videos—to help the job get done right the first time.
- Offering valuable insights into materials, wall assemblies, application techniques, building codes and energy standards to assist in building code compliance verification.
- Delivering a wide array of compatible products to handle most needs of your building, climate and market.
- Simplifying logistics with more than 200 strategically located distributors in the U.S. and Canada to supply your needs.
- Backing product performance with independent testing and warranties to give you peace of mind.



# Tested, Code-Compliant Products

## Extensive product testing

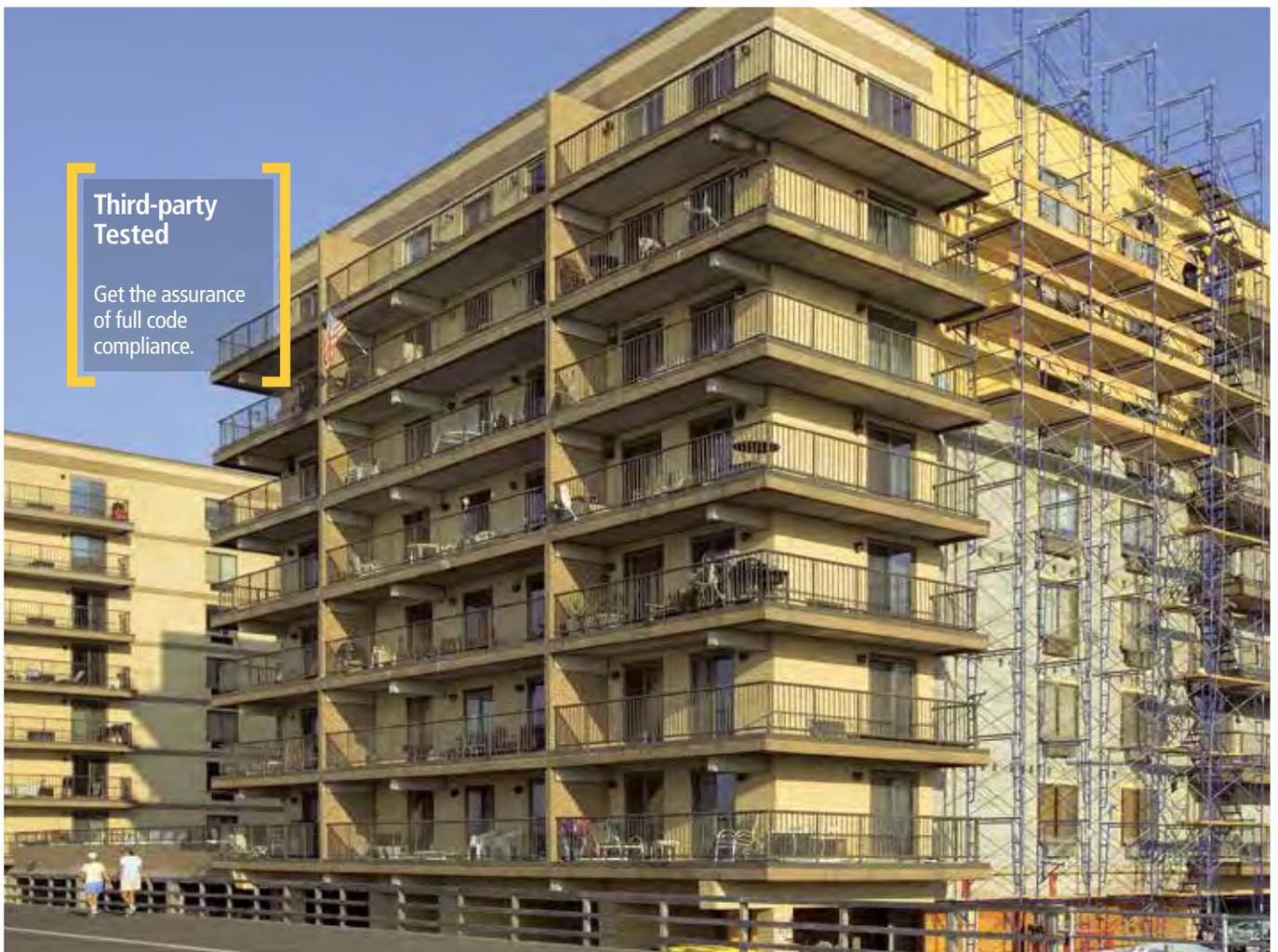
StoGuard® products have passed rigorous testing by independent agencies to demonstrate compliance with International Code Council Evaluation Service (ICC-ES) acceptance criteria to confirm their durability and effectiveness. The StoGuard System has been validated through independent testing at the University of Waterloo<sup>1</sup>, and Oak Ridge National Laboratory by the U.S. Department of Energy<sup>2</sup>.

## Fire tested

StoGuard products have been fire tested either individually or as the air barrier component in wall assemblies using ASTM E-84, NFPA 285 and ASTM E-119 by accredited labs in the U.S. and Canada. Refer to ICC-ES R-1233 and CCMC ERs 12416-R, 13120-R and 13612-R.

## Safe

StoGuard fluid-applied products are water-based, easy to apply and feature low VOC formulations to reduce solvent and odor exposure.



1. Sto EIFS NEXT System with Drainage, Drainage & Drying Study Final Report, University of Waterloo, Building Engineering Group, Civil Engineering Department, August 2005.

2. StoGuard: Demonstration of Hygrothermal Performance through Computer Modelling at Oak Ridge National Laboratory, Sto Technical Report 01-07.2.

# Durability and Quality Go the Distance

## Will not tear like building wraps

StoGuard® products are built to stand the test of time, with each component designed to last the life of the structure. For example, in head-to-head tests with building wrap, our StoGuard fluid-applied air and water barrier not only withstood twice the water-column pressure, it did not fail.\* Most StoGuard products are made in Sto's ISO 9001:2008 and ISO 14001:2004 certified production facilities to assure product quality.

Decades of experience working with different types of structures proves the StoGuard System can protect yours. In fact, StoGuard stands behind over 80,000,000 square feet of exterior cladding—and counting.



Withstands twice the  
water-column pressure  
in head-to-head tests  
with building wrap.

\* StoGuard: Testing for International Building Code Compliance and Comparison to Sheet Water-Resistive Barrier Products

**For your next project, specify StoGuard®  
products—or call your Sto® sales representative  
to discuss your specific needs.**

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For most complete and current information, including guide details and specifications, limitations of use, installation, testing and approvals, refer to product bulletins and other information available at [www.stocorp.com](http://www.stocorp.com)



#### ATTENTION

Sto products are intended for use by qualified professional contractors, not consumers, as a component of a larger construction assembly as specified by a qualified design professional, general contractor or builder. They should be installed in accordance with those specifications and Sto's instructions. Sto Corp. disclaims all, and assumes no, liability for on-site inspections, for its products applied improperly, or by unqualified persons or entities, or as part of an improperly designed or constructed building, for the nonperformance of adjacent building components or assemblies, or for other construction activities beyond Sto's control. Improper use of Sto products or use as part of an improperly designed or constructed larger assembly or building may result in serious damage to this product, and to the structure of the building or its components. **STO CORP. DISCLAIMS ALL WARRANTIES EXPRESS OR IMPLIED EXCEPT FOR EXPLICIT LIMITED WRITTEN WARRANTIES ISSUED TO AND ACCEPTED BY BUILDING OWNERS IN ACCORDANCE WITH STO'S WARRANTY PROGRAMS WHICH ARE SUBJECT TO CHANGE FROM TIME TO TIME.** For the fullest, most current information on proper application, clean-up, mixing and other specifications and warranties, cautions and disclaimers, please refer to the Sto Corp. website, [www.stocorp.com](http://www.stocorp.com).

