



StoGuard® Fluid-applied Waterproof Air Barrier Membrane

Protect First. Make it Last.™

StoGuard®

Engineered to provide superior protection against moisture intrusion and air leakage – and deliver significant energy savings in hot and cold climates.

StoGuard is an efficient assembly of products that combine to create a waterproof air barrier membrane in wall construction. By protecting the backup assembly (sheathing or CMU) first, this fluid applied waterproof air barrier membrane provides superior protection against moisture intrusion and air leakage.

Superior waterproofing

Moisture barriers in walls protect against the transfer of incidental water into the building. They shield moisture-sensitive components, such as wood or gypsum-based sheathings, during construction and in the event of a breach in the outer wall covering, such as a crack in stucco. StoGuard keeps damaging liquid water from penetrating and saturating the sheathing.

High-performance air barrier

The purpose of an air barrier in walls is to minimize air intrusion and leakage through the wall construction. Because air contains water vapor, an air leak can allow large quantities of moisture to transport through relatively small openings. Any unsealed tears, holes or penetrations become avenues for air leakage. StoGuard helps to construct an airtight building envelope, minimizing the risk of moisture problems – decay, corrosion, loss of insulation value, mold growth and indoor air quality (IAQ) problems – that can occur because of air leakage and condensation.

Air barriers and energy efficiency

The U.S. Department of Energy finds that up to 40% of the energy used to heat or cool a building is lost through air leakage. A study² of commercial buildings by the National Institute of Standards and Technology (NIST) confirmed that air barriers promote energy savings ranging from 30–40% for heating climates and 10–15% for cooling climates. When combined with other air barrier components, StoGuard can substantially reduce energy costs over the life of the building by reducing air leakage.

StoGuard waterproof air barrier

StoGuard provides protection for sheathing, CMU and rough openings that is continuous and seamless. Various choices are available to meet any project requirements. StoGuard can be used under brick, wood, vinyl, cement siding, metal panels, cement stucco, and exterior insulation and finish systems, and has been validated through testing at the University of Waterloo and Oak Ridge National Laboratory by the U.S. Department of Energy.



Which StoGuard Waterproof Air Barrier Product is Right for Your Project?

Sto Gold Coat	Sto EmeraldCoat	Sto AirSeal	StoGuard VaporSeal
			
Vapor permeable	Vapor permeable	Vapor permeable	Vapor barrier
Waterproof	Waterproof	Waterproof	Waterproof
Air barrier	Air barrier	Air Barrier	Air barrier
Energy saving	Energy saving	Energy Saving	Energy saving
6-month exposure	2-month exposure	6-month exposure	2-month exposure
10 wet mils	10 wet mils	60-80 wet mils	30 wet mils

All products can be used with other claddings including metal panels, cement board, vinyl, wood, brick, stone, etc. Sto Gold Coat and StoGuard VaporSeal are specifically formulated for use with adhesively attached EIFS. This allows for StoGuard to be used on the entire building when more than one cladding is chosen for a project.

StoGuard is waterproof and protects against the penetration of incidental water into the building. StoGuard exceeds the test requirements of AATCC-127 (modified), Water Resistance: Hydrostatic Pressure Test.



Extensive Product Testing

StoGuard has passed rigorous testing by independent agencies to demonstrate compliance with the International Code Council – Evaluation Service and with Canadian Construction Materials Centre (CCMC) criteria to confirm its durability and effectiveness.

Specifically, StoGuard significantly exceeds the requirements of a series of structural and racking tests (ICC ES AC 212) on large-scale panels that have been subjected to accelerated environmental conditioning cycles. StoGuard has 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 US and Canada. StoGuard provides strength, durability and higher coverage rates.

StoGuard® Features and Benefits

Feature	Benefit
Extensive Testing and Code Approved <ul style="list-style-type: none"> Complies with ICC and CCMC evaluation criteria 	<ul style="list-style-type: none"> Proven to be an extremely durable waterproof and air barrier material Confidence that comes from full code compliance
Air Barrier <ul style="list-style-type: none"> Minimizes airflow through the wall Exceeds CCMC requirements for air barrier materials 	<ul style="list-style-type: none"> Reduces risk of condensation caused by air leaks through wall construction Reduces energy costs by reducing heating/cooling loads Increases occupant comfort
Waterproof Membrane <ul style="list-style-type: none"> Helps protect wall from moisture intrusion, which causes damage to sheathing or behind sheathing 	<ul style="list-style-type: none"> Offers building owners added security and peace of mind Minimizes risk of water damage to sheathing and associated repair or replacement costs
Structural and Seamless <ul style="list-style-type: none"> When applied to sheathing or CMU it becomes structural No chance of tearing away from sheathing or CMU 	<ul style="list-style-type: none"> No air leakage or moisture intrusion between sheathing and StoGuard Rigid and stable under air pressure loads Does not tear or blow off the wall with wind
Low Flame Spread & Smoke Developed	<ul style="list-style-type: none"> Fire tested for use on non-combustible construction
Durable <ul style="list-style-type: none"> Adhesively attached to sheathing or CMU 	<ul style="list-style-type: none"> Does not tear or lose its effectiveness with exposure to weather during construction or while in service Exceeds ICC ES racking requirements High elongation
Low VOCs (Volatile Organic Compounds) <ul style="list-style-type: none"> Water-based formula 	<ul style="list-style-type: none"> Good for the environment Safer installation Meets strict SCAQMD¹ and LEED VOC requirements
Mold Resistant <ul style="list-style-type: none"> Resists mold growth 	<ul style="list-style-type: none"> Reduced risk of mold on protected surfaces Improved indoor air quality
Easy to Install <ul style="list-style-type: none"> Spray-on application with standard airless pump 	<ul style="list-style-type: none"> Reduced labor costs No large sheets or rolls to handle Distinct color makes inconsistencies easy to identify No investment in special equipment to apply material
Extended Exposure <ul style="list-style-type: none"> Protects exposed substrate for up to 6 months 	<ul style="list-style-type: none"> Simplifies scheduling Protects against mold and mildew during construction
Energy Efficient <ul style="list-style-type: none"> Helps prevent air leakage 	<ul style="list-style-type: none"> Reduces energy costs²: 30–40% for heating climates 10–15% for cooling climates

¹ South Coast Air Quality Management District Rule 1113

² NISTIR 7238, "Investigation of the Impact of Commercial Building Envelope Airtightness on HVAC Energy Use."



StoGuard can be applied with an airless sprayer or roller.

Installing StoGuard®

The StoGuard assembly of products is easy to install and can be applied with an airless sprayer or roller for the same smooth, continuous protection. The distinct product color makes application inconsistencies easy to identify. Unlike some solvent-based materials, StoGuard is water-based, has low VOCs and is not toxic. No additional breathing apparatus or special handling is necessary.

Any of the following components may be used with Sto Gold Coat, Sto EmeraldCoat, Sto AirSeal and StoGuard VaporSeal, depending on which option is preferred by the contractor or best meets the job requirements.

Component	Joint Treatment	Rough Opening Protection	Application method:			
			Sprayer	Roller	Putty Knife	Trowel
StoGuard Fabric	•	•	•	•		
Sto Gold Fill / StoGuard Mesh	•	•	*		•	•
StoGuard Tape	•	•	n/a	n/a	n/a	
StoGuard RediCorner		•	•	•		
StoGuard RapidSeal		•			•	

*Sto M-8 sprayer

StoGuard is part of the StoEnergy Guard system. See www.stocorp.com/stoenergyguard.

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