Sto Gold Coat®

Product Number: 81636

PRODUCT DESCRIPTION

Sto Gold Coat is a vapor permeable fluid-applied membrane with built-in antifreeze properties for use over prepared vertical abovegrade concrete, concrete masonry, brick masonry, wood sheathing, cementitious sheathing, and glass mat gypsum sheathing, as part of a StoGuard® air and water-resistive barrier system. It is used in Sto proprietary wall systems and beneath multiple cladding types.

FEATURES	BENEFITS		
Three available	Design and construction team can		
installation options	match installation specification with		
	project needs		
Vapor Permeable	Minimizes risk of condensation in walls		
Structural and durable	Rigid and stable under air pressure		
	loads; does not tear or blow off the wall		
	with wind		
UV durable	Can be left exposed for up to 6 months		
	before covering with wall cladding		
Low temperature	Can be applied at temperatures down		
application ¹	to 25°F (-3.8°C)		
Built-in freeze protection ¹	Not damaged if temperatures fall below		
	freezing immediately after application		
Spray applied with airless	Easy, fast installation; does not require		
spray equipment	specialized spray equipment		
Water-based and low	Safe, VOC compliant, easy clean-up,		
VOC	improved IAQ		
Compatible with other	Reliability and peace of mind		
StoGuard Products			

1. See page 2 for detailed information

Coverage (per pail)

10 mils WFT: 450-600 ft² (42-56m²)

20 mils WFT (2 coats at 10 mils WFT): 300-400 ft² (28-37m²) 40 mils WFT (2 coats at 20 mils WFT): 200-300 ft² (19-28m²) l

60 mils WFT (on CMU, 2 or 3 coats at 20-60 mils WFT): 80-120 ft² (7.11m²)

Coverage may vary depending on substrate, application technique, waste factor, and other variables that may exist. CMU substrates will generally be on the lower end of the coverage range. Construct a mock-up under actual conditions of use to verify proper surface preparation, number of coats required, coverage, and method of application, for approval by the appropriate authority.

Packaging: 5 gallon (19L) pail

Shelf Life: 12 months in original, unopened, properly stored container.

Storage: Store in tightly sealed container. Protect from extreme heat [90°F (32°C)], freezing and direct sunlight.

SURFACE PREPARATION

Sto Proprietary Wall Systems: StoTherm® ci, StoVentec®, StoPowerwall®, StoQuik® Silver, StoPanel®, and StoLite® systems. Refer to applicable Sto Specification.

Surfaces must be fully cured, structurally sound, clean, dry, and free of frost, damage, and all bond-inhibiting materials, including dirt, dust, efflorescence, form oil and other foreign matter. Sheathing must be Exterior Grade or Exposure 1 woodbased sheathing, cementitious sheathing in compliance with ASTM C1325 Type A, or glass mat gypsum sheathing in compliance with ASTM C1177. Sheathing must be installed in compliance with the building code and manufacturer's recommendations. Treat sheathing joints, inside and outside corners, rough openings, and transition details with appropriate StoGuard Detail Components. Refer to Sto Details. Pre-treat defects such as knots in wood-based sheathing, vacant fastener holes or over-driven fasteners, and minor cracks (up to 1/16 inch [1.6 mm] wide) in concrete and CMU with Sto RapidGuard®. If cracks are structural consult an engineer. Note: for fast drying in cold or damp weather use Sto RapidGuard for detailing and pre-treatments. Apply Sto Gold Coat over Sto RapidGuard within 48 hours of its drying for best adhesion.

MIXING

Mix to a uniform consistency with an electric drill and clean, rust-free paddle. Do not thin or dilute with water.



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APPLICATION

Provide adequate ventilation. For best results apply between 40° and 100°F (4° and 38°C) during application and drying period. Apply only to fully cured, structurally sound, clean, dry, properly prepared, frost-free surfaces.

Apply Sto Gold Coat to the prepared substrate using a ½ or ¾ inch (13 or 19mm) nap roller or airless spray equipment. Suggested tip size is .031. Pressure and tip size may vary depending on equipment used. Back roll airless spray applications over OSB and CMU substrates. Apply uniformly to achieve a VOID and PINHOLE free surface on all substrates.

Application for Substrate-Driven Specification:

- Glass Mat Gypsum: apply one coat at minimum 10 mils WFT
- Plywood: apply one coat at minimum 10 mils WFT
- Cement Board: apply one coat at minimum 10 mils WFT
- OSB: apply one or two coats at minimum 20 mils WFT. If applied by roller, apply two coats. Touch up any bare spots and raised OSB strands.
- CMU: apply two or three coats at minimum 20-60 mils WFT.
- Concrete: apply one coat at minimum 10 mils WFT

Application for Medium-Build Specification: apply one or two coats to achieve minimum 20 mils WFT. If applied by roller apply two coats to achieve minimum 20 mils WFT. For CMU substrates apply two or three coats to achieve 20-60 mils WFT.

Application for High-Build Specification: apply two or three coats to achieve 40 mils WFT. If applied by roller apply three or more coats as needed. For CMU substrates apply multiple coats to achieve 40-60 mils WFT.

IMPORTANT: the condition of the substrate may dictate thicker application or more coats to achieve a VOID and PINHOLE FREE SURFACE, particularly on substrates like concrete masonry where CMU composition, unit weight (lightweight or normal weight), porosity, joint profile, and other variables may exist. For "rough" CMU wall surfaces level with a Sto portland cement based leveler or fill with StoPrime® Block Surfacer HP before applying the coating. Use the mock-up and site tests as the basis for the work. Some highly absorbent glass mat gypsum sheathing substrates may require back rolling to achieve a VOID and PINHOLE FREE surface. Avoid excess film build-up of wet material to prevent sag, especially on non-porous surfaces and during cold or damp weather. Work away from sun during application.

Special Instruction for Cold Temperature Application:

Sto Gold Coat has built-in weather protection that enables it to be applied at temperatures less than 40° down to 25°F (4° down to -3.8°C), provided certain conditions are met:

- 1. Material is pre-conditioned to 65°-75°F (18°-24°C)
- Substrate and ambient temperatures are minimum 25°F (-3.8°C) and rising at the time of application and do not fall below 25°F (-3.8°C) until material is fully dry.
- 3. Materials are installed over standard sheathing substrates glass mat gypsum, plywood, or OSB.
- 4. Substrate surfaces are frost-free, dry and remain dry.
- Materials are installed at a wet film thickness of no greater than 10-12 WFT
- 6. Materials are installed with StoGuard Fabric for joint and rough opening treatments.
- 7. Materials are installed in dry weather and protected from rain or other precipitation for at least 24 hours and relative humidity (RH) remains at or below 50%.

IMPORTANT: Final water-resistive barrier and air barrier material properties, and film toughness, depend on temperatures rising above freezing.

Clean Up: clean tools and equipment with water immediately after use. Dried material can only be removed mechanically.

Drying: product dries in 24 hours under normal drying conditions [70°F (21°C), 50% RH)]. Final dry time varies depending on temperature/humidity, thickness of application, and surface conditions. Cold weather and/or damp conditions delay drying. Protect from rain, high humidity, and temperatures less than 40°F (4°C) until completely dry (or, strictly adhere to Special Instruction for Cold Temperature Application). IMPORTANT: IF TEMPORARY HEATERS ARE USED OF IF LEFT UNPROTECTED IN COLD WEATHER, VENTILATE TO THE EXTERIOR TO PREVENT WATER VAPOR FROM CONDENSING ON OR WITHIN THE WALL ASSEMBLY COMPONENTS.



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LIMITATIONS

- Application range is at ambient temperatures between 25° and 100°F (-3.8° and 38°C) during application and drying period.
 Strictly adhere to Special Instructions for Cold Temperature
 Application if installing below 40°F (4°C). Do not apply if substrate or ambient temperature is less than 25°F (-3.8°C), or if temperatures will go below 25°F (-3.8°C) at any time during the application or drying period.
- Do not apply if the surface temperature is less than 5°F (2.8°C) above the ambient dew point temperature.
- Do not use below grade or on surfaces subject to in-service water immersion.
- Allowable weather exposure: 180 days. When used in conjunction with adhesively attached StoTherm ci Systems ensure the surface is clean, dry and free of surface contamination.
- Exercise care when mechanically attaching wall assembly components through Sto Gold Coat so that fasteners go into (not between) framing supports. Do not use powder actuated or other fastening devices that can damage the substrate. Seal all penetrations through the wall to make them watertight. Test assemblies when necessary to verify watertightness.
- Allowable in-service temperature range: -40° to 180°F (-40° to 82°C)
- Fire-retardant or pressure treated plywood must be dry with surface free of salts or other chemicals migrating from within the wood. Test adhesion to be sure of desired results.
- Use a slip sheet, typically one layer of building paper (or Sto DrainScreen® and building paper), between Sto Gold Coat and stucco or adhered masonry veneer over metal lath.

LIMITED WARRANTY

This product is subject to a written limited warranty which can be obtained free of charge from Sto Corp.

HEALTH & SAFETY

Health Precautions: Product is water-based. As with any chemical construction product, exercise care when handling.

WARNING: Causes eye and skin irritation.

Precautionary Statement: Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

FIRST AID MEASURES: Eye Contact: Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention.

Skin Contact: Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

Ingestion: If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Store locked up.

Spills: Collect with suitable absorbent material such as cotton rags. **Disposal:** Dispose of in accordance with local, state or federal regulations.

Warning: KEEP CONTAINER CLOSED WHEN NOT IN USE. KEEP OUT OF THE REACH OF CHILDREN. NOT FOR INTERNAL CONSUMPTION. FOR INDUSTRIAL USE ONLY. Consult the Safety Data Sheet (SDS) on www.stocorp.com for further health and safety information.



PRODUCT BULLETIN

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TECHNICAL DATA

REPORT	TEST METHOD	TEST CRITERIA	TEST RESULT	
%Solids (by volume)	Calculation	N/A	59%	
Color	N/A	N/A	Yellow	
	ASTM E2178	N/A < 0.02 L/s • m²·s @ 75 Pa	Pass	
Air Leakage Resistance	ASTIVI EZ 178	(<0.004 cfm/ft² @ 1.57 psf	Pass	
Water Vapor Permeability	ASTM E96	Measure	19 perms at 7-8 mils DFT	
water vapor refineability	Method B	iviedsure	12.4 perms at 18 mils DFT	
Surface Burning	ASTM E84	Flame Spread: < 25	Flame Spread: 0	
Janace Banning	7.51111 201	Smoke Developed: < 450	Smoke Developed: 5	
Elongation	ASTM D412	N/A	246% (2 coats at total 14-15 DFT)	
Tensile Strength	ASTM D412	N/A	84 psi [579 kPa] (2 coats at total 14-15 DFT)	
Adhesion to Substrates	ASTM E2570/C297	> 15 psi (103 kPa)	> 15 psi (105 kPa) over glass mat gypsum	
			sheathing	
			> 50 psi (345 kPa) over CMU, OSB & plywood	
			sheathing	
Nail Sealability	ASTM D1970	No water penetration after 72 hours at 40°F (4°C)	Pass	
Mold Resistance	ASTM D3273	No mold growth after 28 days	Pass at 90 days	
Accelerated Weathering/	ASTM E2570/	No cracking of the coating or bond failure, no	Pass	
Hydrostatic Pressure	AATCC 127	water penetration after cyclic weathering & 5 hour		
	(modified)	water column (21.5 in [55 cm])		
Structural, Racking, Restrained	ASTM E2570/	No cracking in the field of the panel, at substrate	Pass, no water penetration after sequence of 15	
Environmental Conditioning, and	E1233/ E72/E331	joints, and at the interface with flashing, no water	minute water sprays at 2.86, 6.24, 12.0, and 15.0	
Resistance to Water Penetration	(par 6.6.3)	penetration	psf (137, 299, 574, and 718 Pa)	
Air Leakage of Air Barrier Assembly*	ASTM E2357	< 0.2 L/s•m2 @ 75 Pa	Pass	
		(< 0.04 cfm/ft2 @ 1.57 psf)		
Fire Performance of Assembly	NFPA 285	Comply with acceptance criteria	Complies (see below)	
Building Code Compliance)	 Meets requirements of 2021 IBC, IRC, and IECC as an air barrier and water-resistive barrier, complies with requirements of ICC AC 212 and ASTM E2570. Refer to ICC-ESR 1233. Class A Building Material. Meets requirements for use on noncombustible construction as a component of: StoTherm® ci, StoPowerwall®, StoQuik® Silver, StoPanel®, and StoLite®. Refer to ICC-ESRs 1748, 2323, 2536, 4500, and 1233 StoVentec® Ventilated Rainscreen wall systems. Refer to Intertek Design Listings Sto/CWP 30-01 and Sto/CWP 30-02 and Intertek CCRR-0454 Code compliant concrete, concrete masonry, portland cement stucco, and other wall assemblies. Refer to ICC-ESR 1233 			
VOC Compliance	This product complies with US EPA (40 CFR 59) and South Coast AQMD (Rule 1113) VOC emission standards for Building Envelope Coating. VOC less than 50 g/L.			
Results are based on lab testing under controlled conditions. Results can vary between labs or from field tests.				

Sto Corp.	Revision No: 004	ATTENTION
3800 Camp Creek Parkway Building 1400, Suite 120 Atlanta, GA 30331 Tel: 404-346-3666 Toll Free: 1-800-221-2397 Fax: 404 346-3119 www.stocorp.com	Date: 01/2023	This product is 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. It 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 this product 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 EXPRESSED 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. 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, <u>www.stocorp.com</u>