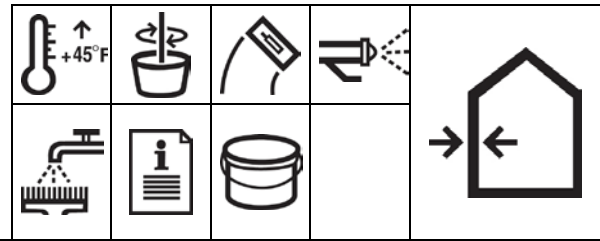


# Sto Gold Fill<sup>®</sup> and StoGuard<sup>®</sup> Meshes

80266 Sto Gold Fill<sup>®</sup>  
 80267 StoGuard<sup>®</sup> Mesh 4.25"  
 80268 StoGuard<sup>®</sup> Mesh 9.5"  
 ICC-ESR 1233  
 CCMC 1246-R, CCMC 13120-R, CCMC 13612-R



## Technical Data

StoGuard <sup>®</sup> Mesh		ASTM (D-5035)		TENSILE STRENGTH (ASTM E 2098)		POST ALKALINE STRENGTH
DESCRIPTION	WT/SQ YD.	WIDTH OF ROLL	LENGTH OF ROLL	WARP	WEFT	ASTM E 2098
<b>StoGuard Mesh 4.25"</b>	5 oz.	4.25" (110 mm)	150' (45.7 m)	150	165	> 120
<b>StoGuard Mesh 9.5"</b>	5 oz.	9.5" (240 mm)	150' (45.7 m)	150	165	> 120

StoGuard <sup>®</sup> Assembly with Sto Gold Fill <sup>®</sup> and Sto Gold Coat <sup>®</sup>			
REPORT	TEST METHOD	TEST CRITERIA	TEST RESULTS
<b>Air Leakage of Air Barrier Assembly</b>	ASTM E-2357	≤0.2 L/s·m <sup>2</sup> at 75 Pa (≤0.04 cfm/ft <sup>2</sup> at 1.57 psf)	0.016 L/s·m <sup>2</sup> at 75 Pa (0.003 cfm/ft <sup>2</sup> at 1.57 psf)
<b>Aging/Water Penetration Resistance</b>	AATCC 127 (Water Column)	Resist 21.6 in (55 cm) water for 5 hours before and after aging	No water penetration before and after aging. No water penetration at 332 inches (845 cm) head of water before aging.
<b>Structural Loading / Water Penetration Testing</b>	ASTM E-1233/ ASTM E-331	No water at exterior plane of sheathing (exterior gypsum, Dens-Glass <sup>®</sup> Gold, plywood, OSB) after 10 cycles @ 80% design load and 75 minutes water spray at 6.24 psf (299 Pa) pressure differential with water spray rate of 5 gal/ft <sup>2</sup> ·hr (3.4 L/m <sup>2</sup> ·min)	No water penetration
<b>Cyclic Pressure/ Water Penetration Testing</b>	ASTM E-283/ ASTM E-331	No water penetration or evidence of elevated moisture levels in plywood sheathing after 10 cycles of conditioning at 299 Pa (6.24 psf) positive and negative pressure followed by 75 minutes water spray at 6.24 psf (299 Pa) pressure differential with water spray rate of 5 gal/ft <sup>2</sup> ·hr (3.4 L/m <sup>2</sup> ·min)	No water penetration, no elevated moisture levels
<b>Freeze/Thaw Resistance</b>	ICBO Method (AC 24)	No visible effects (cracking, checking, delamination, erosion) when viewed at 5x magnification	No visible deleterious effects after at 5x magnification
<b>Water Vapor Permeance</b> Sto Gold Fill	ASTM E-96  Method B (Water Method)	Measure	Sto Gold Fill: 7.10 perms [408 ng/(Pa·s·m <sup>2</sup> )]
<b>Air Leakage: Wall Assembly with Sto Gold Fill</b>	ASTM E-283 (SBCCI PST & ESI Method)	< 0.06 cfm/ft <sup>2</sup> @ 1.57 psf [0.00030 L/(s·m <sup>2</sup> ) @ 75 Pa]	0.0044 cfm/ft <sup>2</sup> [0.00022 L/(s·m <sup>2</sup> )]
<b>Air Leakage: Sto Gold Fill</b>	ASTM E-283	< 0.003 cfm/ft <sup>2</sup> @ 1.57 psf < (0.02 L/s·m <sup>2</sup> @ 75 Pa)	< 0.0002 cfm/ft <sup>2</sup> < (0.0014 L/s·m <sup>2</sup> )
<b>Air Leakage: Sto Gold Fill</b>	ASTM E-2178	< 0.003 cfm/ft <sup>2</sup> @ 1.57 psf < (0.02 L/s·m <sup>2</sup> @ 75 Pa)	0.0002 cfm/ft <sup>2</sup> (0.0014 L/s·m <sup>2</sup> )
<b>Structural Integrity</b>	ASTM E-330	2 inches (51 mm) water pressure (positive and negative) for 1 hour	No loss of structural integrity
<b>Dry Tensile Strength: Sto Gold Fill</b>	ASTM D-882	20 lbs/in (3503 N/m) minimum before and after aging	Sto Gold Fill: 159 pli (27.8 kN/m) before aging; 213 pli (37.3 kN/m) after aging
<b>Flexibility</b>	ASTM D-522	No cracking or delamination using 1/8" (3 mm) mandrel at 14° F (-10° C) before and after aging	No cracking or delamination before & after aging

Sto Gold Fill is a ready-mixed, flexible, joint treatment and air barrier material for vertical above grade walls. It is applied to rough openings, corners, and sheathing joints in walls with StoGuard Mesh. StoGuard Mesh is a glass fiber self-adhesive mesh for use with Sto Gold Fill.

For waterproofing, apply Sto Gold Coat or Sto EmeraldCoat<sup>®</sup> to the sheathing and Sto Gold Fill. Sto Gold Fill and StoGuard Mesh are part of the StoGuard Assembly which is a fluid-applied membrane that offers a superior waterproof air barrier. StoGuard can be used beneath various claddings including brick, wood, vinyl, or fiber/cement sidings and as part of StoTherm<sup>®</sup> ci.

### ICC Code Recognition

**Coverage**  
 StoGuard Mesh 4.25" (110 mm) x 150 ft (45.7 m).

StoGuard Mesh 9.5" (240 mm) x 150 ft (45.7 m).

Sto Gold Fill: One pail will treat approximately 175-250 linear feet (53-76 m) of sheathing joints and rough openings. Coverage may vary depending on application technique, sheathing type, the size of sheathing joints and the number and condition of rough openings.

**Packaging**  
 Sto Gold Fill: 5 gallon (19 L) pail.  
**Shelf Life**  
 18 months, if properly stored and sealed.

**Storage**  
 Protect from extreme heat [90°F (32°C)], freezing and direct sunlight.

**Sto Gold Fill®**  
**StoGuard® Mesh 4.25”**  
**StoGuard® Mesh 9.5”**

**Technical Data continued**

REPORT	TEST METHOD	TEST CRITERIA	TEST RESULTS
<b>Tensile Adhesion</b>	ASTM C-297	> 15 psi (103 kPa)	Gypsum (ASTM C79): > 30 psi (206 kPa) Gypsum (ASTM C1177): > 30 psi (206 kPa) Exposure 1 OSB: > 50 psi (344 kPa) Exterior Plywood: > 90 psi (620 kPa)
<b>Surface Burning</b>	ASTM E-84	Flame Spread: < 25 Smoke Developed: < 450	Flame Spread: 5 Smoke Developed: 10 NFPA Class A, UBC Class 1 Building Material
<b>Fire Testing</b>	UBC 26-9	No increase in fire hazard	Pass
<b>VOC (g/L)</b>	This product complies with US EPA (40 CFR 59) and South Coast AQMD (Rule 1113) VOC emission standards for architectural coatings. VOC less than 100 g/L.		

**Features** **Benefits**

<b>1 Air Barrier</b>	Reduces risk of condensation caused by air leaks through the wall construction; reduces energy costs by reducing heating/cooling loads
<b>2 Vapor Permeable</b>	Moisture does not get trapped in the wall cavity
<b>3 Structural</b>	No air leakage between the sheathing and StoGuard; rigid and stable under air pressure loads; does not tear or blow off the wall with wind
<b>4 Seamless</b>	No tears, holes, or mislapped joints that can compromise performance in service
<b>5 Durable</b>	Does not tear or lose its effectiveness with exposure to weather during construction or while in service
<b>6 Resists UV Degradation</b>	Gives peace of mind if construction delays occur
<b>7 Water Based</b>	Safe non-toxic, VOC compliant

**Surface Preparation**

Surfaces must be clean, dry, and free of frost, damage and all bond-inhibiting materials, including dirt, efflorescence, form oil and other foreign matter. Damaged sheathing must be removed and replaced. Avoid application over irregular surfaces.

Substrate to be coated must be continuous without joints, holes, etc. exceeding 1/32" (0.8 mm) in size. Sheathing must be properly installed as required by applicable building codes or sheathing manufacturer.

**Mixing**

Mix with a clean, rust-free electric drill and paddle to a uniform consistency.

**PRODUCT MUST NOT BE THINNED OR DILUTED.**

**Application**

Apply only to sound and clean, dry, properly prepared, frost-free surfaces.

**Installation over Sheathed Wall Construction:**  
Place minimum 4 inch (101 mm) wide mesh at sheathing joints and minimum 9 inch (152 mm) wide mesh at rough openings and inside and outside corners (refer to Sto detail 20.23a). Immediately apply Sto Gold Fill by spray or trowel over the mesh and trowel smooth. Protect from rain and freezing until dry. Spot fasteners, knots, or other voids in sheathing surface with Sto Gold Fill.

For waterproofing, apply Sto Gold Coat or Sto EmeraldCoat to sheathing and Sto Gold Fill. See Sto Gold Coat or Sto EmeraldCoat product bulletins for more information.

**Material Storage**  
Keep containers covered to protect from skinning. If skin forms, remove the skinned material from container; remaining material is unaffected by skinned material.

**Curing/Drying**  
Sto Gold Fill is dry to touch and can be over coated within 4 hours under normal [70°F (21°C), 50% RH] conditions. Final drying varies depending on temperature/humidity and surface conditions. Final drying time varies depending on temperature/humidity and surface conditions.  
Protect from rain and freezing until completely dry.

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



# Sto Gold Fill® StoGuard® Mesh 4.25” StoGuard® Mesh 9.5”

## Limitations

- Apply only when the surface and ambient temperatures are above 40°F (4°C) and below 100°F (38°C) during application and drying period.
- Not recommended for use when cool, damp conditions exist for prolonged periods. Cool, damp conditions retard drying and may require extended periods of protection.
- Do not use on damp surfaces, below grade, or on surfaces subject to water immersion.
- Fire-retardant treated or pressure treated plywood substrates must be dry and free of all bond-inhibiting materials.
- Not recommended for spanning sheathing joints or holes in excess of 1/8" (3 mm) wide.
- Sto Gold Fill can be left exposed to weather for up to 90 days after installation. Ensure surface is clean, dry, and free of surface contamination before top coating with the applicable Sto air and moisture barrier coating material.

\* Dens-Glass Gold is a registered trademark of G-P Gypsum Corp.

## StoGuard Mesh:

- High humidity or adverse weather may result in loss of adhesion prior to application of Sto Gold Fill. Immediately cover with Sto Gold Fill to prevent loss of adhesion
- Avoid contact with dirt and debris which will cling to self-adhesive side of mesh.
- Not for use on concrete or masonry surfaces. Use Sto Detail Mesh embedded in Sto Gold Fill for these surfaces.

For complete information refer to StoGuard Air Barrier and Moisture Control Handbook.

## Health And Safety

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.

### Spills

Collect with suitable absorbent material such as cotton rags.

### Disposal

Dispose 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 for further health and safety information.

Safety Data Sheet (SDS) is available at [www.stocorp.com](http://www.stocorp.com).

### LIMITED WARRANTY

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

*Refer to Sto Specifications for more complete information on proper use and handling of this product.*

**Sto Corp.**  
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**S155-80266,  
80267, 80268**  
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### Attention

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 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).