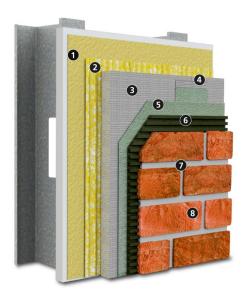


System Bulletin Building with conscience.

# StoQuik® Silver DrainScreen® MVES

Masonry Veneer Engineered cement board wall system with advanced cavity wall design, and continuous air and water-resistive barrier



Substrate: Glass Mat Gypsum sheathing in compliance with ASTM C1177, code compliant wood-based sheathing (plywood or OSB)

1)	Air & Water-resistive Barrier: Sto Gold Coat®
2)	Drainage Mat: Sto DrainScreen®

- 3) Cement Board: ½ inch (13mm) PermaBase® Brand by National Gypsum
- 4) Joint Treatment: StoGuard Mesh (skim coated with StoColl Adhesive Mortar) or Sto Detail Mesh (embedded in StoColl Adhesive Mortar)
- 5) Skim Coat: StoColl Adhesive Mortar
- **6)** Masonry Veneer Adhesive: StoColl Adhesive Mortar
- 7) Masonry Veneer Grout: ANSI 118.7 compliant portland cement-based grout
- 8) Masonry Veneer: thin brick, thin stone, ceramic tile, or manufactured stone in conformance with applicable building code requirements

System Accessory: StoSeal STPE Sealant for use as an exterior weather seal around wall penetrations, at dynamic joints in wall construction, and as an interior air seal for air barrier continuity

#### **System Description**

StoQuik Silver DrainScreen MVES is a cement board wall system with Adhered Masonry Veneer (AMV) — thin brick, natural stone, ceramic tile, or manufactured stone. It combines the speed of installation and durability of cement board with advanced cavity wall design, Sto high strength masonry veneer adhesive, and the moisture protection of StoGuard Air and Water-resistive Barriers.

#### Uses

StoQuik Silver DrainScreen MVES can be used in residential or commercial wall construction where durability, superior aesthetics, and air and moisture control are essential in the climate extremes of North America.

North America.				
Features	Benefits			
Variety of masonry veneers — brick, stone, tile — that integrate seamlessly with Sto finishes	Design versatility on a single compatible substrate			
Impact and puncture resistant cladding	Withstands abuse, reduced maintenance			
Advanced cavity wall design	Reduces risk of water penetration			
Continuous air and water- resistive barrier	Impedes water penetration, helps reduce energy costs			
Fully tested, building code compliant wall assembly	Peace of mind			
Properties				
Weight (not including sheathing and frame)	< 24 lb/ft² (118 kg/m²) with nominal 15 lb/ft² (73.2 kg/m²) masonry veneer			
Assembly Thickness (from outside face of sheathing)	Nominal 1-5/8-in (41 mm) with 5/8-in(16mm) thick masonry veneer			
R-value (from outside face of sheathing)	0.37 ft²•h•°F / Btu (0.065 m²•K / W)			
Wind Load Resistance (varies with stiffness of stud wall construction and sheathing / lath attachment)	Capable of achieving ultimate loads of: +166 psf (7.95 KPa), -94 psf (4.50 kPa) [steel studs]			
Code Compliance:	2018, 2021 IBC, IRC, IECC			
Construction Types and Fire Resistance	Noncombustible construction (with height limitations)     Hourly ratings			

## Warranty

15 year Limited Warranty

#### Maintenance

Requires periodic cleaning to maintain appearance, repair of cracks and impact damage if they occur. Sealants and other façade components must be maintained to prevent water infiltration.



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#### **Design Guidance and Limitations**

Wind load resistance:

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- ± 44 psf (2.11 kPA) over steel studs, ± 35 psf (1.67 kPa) over wood studs [with safety factor of 3 applied]. Consult UL ER 22158-01 for details of construction.
- +55 psf, -31 psf (+2.63, -1.48 kPa) over steel studs, +33 psf, -37 psf (+1.58, -1.77 kPa) over wood studs [safety factor of 3 applied]. Consult ICC ESR-2536 for details of construction

For use on vertical above grade walls only, up to 6-stories or 72 ft (22m) in height. Noncombustible construction: limited to use on buildings less than or equal to 40 ft (12.2m) in height above grade plane. Combustible Construction: height limit as permitted by the applicable building code.

Manufactured stone and natural stone industry limit use of adhered masonry veneer. Refer to Sto Tech Hotline No. 0821-M, *Quick Reference Guide on Adhered Masonry Veneers in Exterior Wall Construction*, for additional information and consult with veneer unit manufacturer.

Do not use on roofs or roof-like surfaces, on surfaces subject to in-service water immersion, or below grade. Maintain clearance of minimum 6-in (152mm) above grade.

Joints are required, including at intervals in the field of the wall to accommodate thermal movement. Refer to Sto Specifications

Fire-Resistance-Rated Construction: where an hourly fire-resistance rating is required consult UL ER22158-01 and ICC ESR-2536 for listed assemblies

Mortar Joints: must be grouted except where permitted for manufactured stone (refer to Sto Tech Hotline No. 0821-M, *Quick Reference Guide on Adhered Masonry Veneers in Exterior Wall Construction*)

Adhered masonry veneer units are limited in thickness, size and weight by the IBC and IRC. Refer to Sto Tech Hotline No. 0821-M, *Quick Reference Guide on Adhered Masonry Veneers in Exterior Wall Construction*.

Efflorescence is a normal occurrence in portland cement-based materials and can affect final appearance of finish products. To minimize risk of efflorescence follow best construction practices to prevent water entry into walls through proper design detailing, and the proper use of flashing, copings, and sealant. Refer to Sto Details.

Air and water-resistive barrier and drainage mat are not intended for prolonged weather exposure. Refer to individual AWRB product bulletins for allowable exposure period. Refer to specific component product bulletins and packaging for other limitations that may apply involving use, handling and storage of component materials.

### Sustainable Design

#### Air Quality and VOC Compliance

Adhesive, air & water-resistive barrier joint treatments and coatings meet Sout Coast AQMD (Rule 1113) VOC standards for Building Envelope Coating: less than 50 g/L

#### **LEED Credit Eligibility**

System has high potential for LEED and other sustainability program credits based on use of continuous air and water-resistive barrier and VOC compliance

Regulatory Compliance and Standards Testing					
ICC ESR No. 1233	Sto Gold Coat air & water-resistive barrier complies with 2018 and 2021 IBC, IRC and IECC				
ASHRAE 90.1-2022 <sup>1</sup>	Sto Gold Coat air & water-resistive barrier complies with Section 5, Building Envelope, air barrier requirements				
ASTM E2178 <sup>2</sup> , ASTM E 2357 <sup>3</sup>	Sto Gold Coat air & water-resistive barrier meets material and assembly air leakage resistance criteria				
ASTM E 119 <sup>4</sup>	StoQuik Silver MVES is a component of hourly rated walls. Refer to UL ER 22158-01 and ICC ESR-2536 for listed assemblies.				

- 1. Energy Standard for Buildings Except Low-Rise Residential Buildings
- 2. Standard Test Method for Determining Air Leakage of Air Barrier Assemblies
- 3. Standard Test Method for Determining Air Leakage of Air Barrier Assemblies
- Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components

#### For complete information refer to www.stocorp.com

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Tel: 404-346-3666 Toll Free: 1-800-221-2397		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
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