

Elemax* 2600

silicone air and water-resistive barrier coating



Product Description

GE Elemax 2600 silicone air and water-resistive silicone barrier (AWB) is a solvent free, fluid-applied, 100% silicone coating for AWB applications to coat and seal above-grade wall assemblies. Elemax 2600 silicone AWB coating provides long-term air and water protection from a variety of elements: temperature extremes, sunlight / UV radiation, rain, and snow.

Basic Uses

Elemax 2600 silicone AWB coating is an excellent product to consider as a long term barrier against the passage of air and water. This product is compatible with silicone materials used to seal and glaze windows, doors, joints and other façade features. In addition, most silicone sealants will bond to cured Elemax 2600 silicone AWB coating, alleviating adhesion concerns at transitions from exterior wall elements to the air and water barrier.

Key Features and Typical Benefits

- **Lowers Energy Costs** - Optimal air & water-resistive barrier performance throughout the life of the building; lowers energy costs and provides a barrier to reduce rot, rust, mold and other water-related issues.
- **Seamless, Monolithic Air Barrier** - Fluid application of the all silicone product / system creates a seamless, monolithic air barrier.
- **Simple Installation** - Straightforward system design, easy application and compatibility with adjacent building components eases installation.

Typical Performance and Application Properties

Performance

- **Reduced Energy Consumption** - Elemax AWB systems control the flow of air and water through the building envelope and create a contiguous barrier to reduce energy consumption in a building by up to an estimated 35%.
- **100% Silicone Durability** - Cured silicone rubber exhibits excellent long-term resistance to natural weathering and extreme temperatures with negligible change in elasticity, whether used on the exterior or interior of a wall system.
- **UV Resistant** - Exposure for 20+ years without measurable change in properties or performance. Excellent product for use behind open joint and ventilated rain screen claddings.
- **Self-sealing** - Passes water penetration standards for nails and fasteners when tested at system film thickness. Fastener self-sealing ensures that the AWB performs optimally, after the building is fully clad.
- **Fire Characteristics** - NFPA 285: Pass- Acceptable for use in multiple wall assemblies. Meets 2015 IBC exemptions for water-resistive barriers. ASTM E84: Class A Flame Spread and Smoke Generation.
- **Elastomeric** - Cures to form a permanently flexible continuous membrane virtually unaffected by temperature extremes.

GE is a registered trademark of General Electric Company and is under license by Momentive Performance Materials Inc.

*Elemax is a trademark of Momentive Performance Materials Inc.



Elemax* 2600 silicone air and water-resistive barrier coating

Application

- **Seamless, breathable membrane** - prevents water and air from entering the building, while allowing moisture vapor to escape.
- **Simple One-coat Application** - Elemax 2600 silicone AWB coating can be applied by spray, power roller or brush, and saves labor cost, resulting in a high value versus installed cost.
- **Primerless Adhesion** - Bonds strongly to many typical substrates without the need of a primer.
- **Extended Temperature Range** - Application range of 0°F to 150°F (-18°C to 66°C) and in-use temperature range of -40°F to 300°F (-40°C to 149°C) for any cladding / wall assembly design. Viscosity of product is minimally affected by temperature and does not require heating in cold climates.
- **Rain Ready** - Can be exposed to a medium to heavy rain in as little as 30 minutes.
- **Fast Cure** - For quick re-coat time and ease of touch-up.
- **Application to Various Substrates** - Elemax 2600 silicone AWB coating can be installed over various exterior wall substrates including poured concrete, CMU, glass mat gypsum sheathing, cement-board, plywood, OSB and exterior gypsum sheathing.
- **Silicone Compatibility** - Compatible with windows, doors, joints and features sealed using silicone.
- **Solvent Free** - Low VOC formula compliant with Bay Area and South Coast Air Quality Management District requirements.

Elemax AWB System

The following GE components comprise the 100% silicone air and water barrier system:

Air and Water Barrier Components:

- GE Elemax 2600 silicone AWB coating - Fluid applied 100% silicone membrane.
- GE Elemax 5000 Liquid Flashing - Non-sag 100% silicone sealants for joints, seams, gaps, flashing and for adhering transition materials such as GE UltraSpan* silicone transition strips. The following is a list of additional acceptable GE sealants that may be used:
 - SCS2000 SilPruf* silicone sealant
 - SCS2700 SilPruf LM low modulus silicone sealant
 - SCS9000 SilPruf NB non-staining silicone sealant
 - SWS* silicone weathersealing sealant
- GE UltraSpan UST2200 silicone transition sheets, GE UltraSpan US1100 silicone transition strips, and GE UltraSpan USM pre-cured silicone molded corners may also be used. UltraSpan 100% silicone heat cured rubber can be used for detailing and transitioning across large gaps, expansion joints, drift joints, around penetrations and changes in plane, etc.
- GE RF100 reinforcing fabric - 100% polyester spun-laced reinforcing fabric used to treat rough openings, penetrations, inside / outside corners, flashing, transitions, changes in plane, and more. RF100 reinforcing fabric can be used to span static gaps up to 1/2" (13 mm).

Packaging & Colors

Elemax 2600 silicone AWB coating is currently available in the following configurations:

- 5 gallon plastic pails (5-gal [18.9 L] net)
- 55 gallon drums (50-gal [189 L] net)

Colors

Elemax 2600 silicone AWB coating is currently available as a stock color in black. Grey and white may be available upon request. Please contact your MPM sales representative for more details.

Elemax* 2600 silicone air and water-resistive barrier coating

Typical Physical Properties

Typical physical property values of Elemax 2600 silicone air and water-resistive silicone barrier coating as supplied and cured are set forth in the tables below.

Typical Properties – Supplied

Property	Value ⁽¹⁾	Test Method
Polymer	100% silicone	
Consistency	Pourable Liquid	
Color	Black	
VOC	<24 g/l	EPA Method 24
Viscosity	~25,000 centipoise	ASTM D2196, method A
Solids Content, % by volume	90%	Modified ASTM D2697

Typical Properties – Cured State at 17 mils DFT (applied at 19 mils wet)

Property	Value ⁽¹⁾	Test Method
Air Permeance – tested at 1.57 psf (75 Pa)	0.00006 cfm / ft ² (0.003 L / s·m ²)	ASTM E2178
	0.0002 cfm/ft ² (0.0009 L/s·m ²)	CAN/ULC-741
Assembly Air Leakage - tested at 1.57 psf (75 Pa)	0.0002 cfm/ft ² (0.0009 L/s·m ²)	ASTM E2357
	0.0004 cfm/ft ² (0.0018 L/s·m ²) Class A1	CAN/ULC-742
Water Vapor Permeance	10.5 perms	ASTM E96
Water Penetration	No water penetration observed after 15 minutes @ 62.5 psf (2993 Pa)	ASTM E331
UV & Weathering Resistance	No degradation after 5000 hours	ASTM G154
Self Sealability around Nails	Pass	ASTM D1970
Crack Bridging Ability (1/16" or 1.5 mm)	Pass	ASTM C1305
Application Temperature Range	0°F to 150°F (-18°C to 66°C)	
Service Temperature Range	-40°F to +300°F (-40°C to 149°C)	
Pull of Strength (concrete)	126 psi (0.87 MPa)	ASTM D4541
Pull of Strength (fiberglass mat faced gypsum sheathing)	44 psi (0.30 MPa) ⁽²⁾	ASTM D4541
Tensile Strength	204 psi (1.41 MPa)	ASTM D412 ⁽³⁾
Elongation	542%	ASTM D412 ⁽³⁾
Cure Time, complete	1-2 days	Varies with Temp & RH
Recoat Time	<2 hours	Varies with Temp & RH
Multi-Story Wall Assembly Burn Test	Passed in assembly tested and acceptable for use in various wall assemblies per engineering analysis	NFPA 285
Surface Burning Characteristics	Flame Spread: 10 Smoke Developed: 185 NFPA Class A, UBC Class 1	ASTM E84
Oxygen Consumption (Cone) Calorimeter	Effective Heat of Combustion: 9.8 MJ/kg Peak Heat Release Rate 97 kW/m ² Total Heat Release: 5.6 MJ/m ²	ASTM E1354

(1) Typical properties are average data and are not to be used as or to develop specifications.

(2) Full strength of silicone not realized due to failure of fiberglass mat / sheathing substrate prior to coating failure. Note: Hygrothermal analysis properties are available upon request.

(3) Samples were prepared per ASTM D2370 and tested in accordance to ASTM D412.

Elemax* 2600 silicone air and water-resistive barrier coating

Applicable Standards

ABAA - Tested to performance requirements of the Air Barrier Association of America



Technical Services

For additional technical resources, please contact your local customer service center. (See Customer Service Centers section herein for contact information.) Any technical advice furnished by MPM or any representative of MPM concerning any use or application of any MPM product is believed to be reliable, but MPM makes no warranty, expressed or implied, of suitability for use in any application for which such advice is furnished.

Customer Evaluation

Customers must evaluate MPM products and make their own determination as to the fitness of use in their particular applications.

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

Product Safety, Handling and Storage

Customers considering the use of this product should review the latest Safety Data Sheet and label for product safety information, handling instructions, personal protective equipment if necessary, and any special storage conditions required. Safety Data Sheets are available at www.ge.com/silicones or, upon request from any MPM representative. Use of other materials in conjunction with MPM sealant products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

Handling and Storage

- Do not open containers until ready for use.
- Keep containers tightly closed and the plastic liner pressed closely to the material when not in use. Elemax 2600 silicone AWB coating reacts with atmospheric moisture to propagate the curing process. Once containers are open and exposed to the atmosphere, a skin will form on the material over time. The formation of skin will be negligible in colder months but can form quickly (in minutes) under hot and humid conditions. Cured product that has formed on the top of the material must be removed or screened from the bulk material as it may contribute to pump clogging.
- Elemax 2600 silicone AWB coating has a shelf life of 18 months from date of manufacture when stored accordingly in original unopened containers.
- Store Elemax 2600 silicone AWB coating below 109°F (43°C).

- The coating will not freeze. Unheated storage in cold temperatures is acceptable.
- Storing uncured coating in elevated temperatures may lead to a decrease the effective life of the material. Avoid storage in direct sunlight for long periods.

Installation

Installation Temperatures

The Elemax Air & Water Barrier system can be applied under most seasonal conditions including during colder months. It is important to note that these silicone products will not bond to moist or wet substrates and caution should be used when applying in early morning hours when dew may be present, under colder conditions when frost may be present, or after rainfall when substrates may still contain residual moisture. Substrates must be clean, dry and frost free. Application may proceed under colder conditions as low as 0°F (-18°C) as long as the material is applied to a dry substrate. Do not apply Elemax 2600 silicone AWB coating onto substrates surfaces with temperature at or above 150°F (66°C).

Curing and Recoat Time

The curing rate of Elemax 2600 silicone AWB coating is temperature and humidity dependent. Cooler and lower humidity conditions slow the cure rate, whereas warmer and moist conditions increase the cure rate. Under standard conditions of 72°F (22°C) and 50% relative humidity (RH), this material typically attains a tack-free surface in 1-2 hours and achieves full cure within 24 hours. Recoating or touch-up can proceed as soon as the coating has achieved a firm surface, which in most climatic conditions is less than 2 hours, however in cold temperatures may be 24-48 hours.

Surface Preparation

- All surfaces must be clean, dry and free of contaminants that may interfere with proper bonding of the sealants and coating.
- New concrete / CMU / mortars / grouts should allow at least 28 days to permit these material(s) to sufficiently cure and dry out prior to application of the Elemax 2600 silicone AWB coating. If application must proceed prior to full dry of masonry, an adhesion test is recommended before proceeding.
- Where necessary, clean loose mortar and other contamination on masonry with a wire brush or similar abrasion to provide a stable, clean, and dust-free surface for application.
- Since porous materials can absorb and retain moisture, it is important to confirm that substrates are dry prior to application of the barrier.
- As a best practice, it is recommended to pre-test adhesion of sealant(s) and coating to project substrates, including metals, flashings, plastics, penetrations, etc. Primers are available when needed to enhance adhesion to difficult-to-bond-to substrates.

Elemax* 2600 silicone air and water-resistive barrier coating

Treatment of Concrete/Masonry

Fill small voids and cracks up to 1/2" (12 mm) in masonry surfaces with Elemax 5000 Liquid Flashing. Use a joint knife or suitable trowel to press and spread sealant to a nominal 1" (25 mm) width centered on the crack whilst maintaining a minimum sealant thickness of 1/16" (2 mm). Repair larger cracks or voids with non-shrinking grout or other appropriate patching material. When spraying to CMU, back rolling will be required to avoid pin holes in the membrane.

Treatment of Sheathing

Holes or Damage

Elemax 2600 silicone AWB coating will cover normal surface irregularities or minor scrapes in sheathing when applied at the proper film thickness. Smaller holes (for example, vacated screw holes, punctures, etc.) up to around 3/8" (10 mm) in diameter should be treated with a troweled application of Elemax 5000 Liquid Flashing. Larger holes or damage to the sheathing (large spalls, damaged corners, etc.) that the coating or sealant cannot obviously accommodate will need to be repaired according to sheathing manufacturer.

Cut Edge of Sheathing (Exposed Gypsum)

Elemax 2600 silicone AWB coating can be rolled or brushed to consolidate exposed gypsum, if necessary.

Screw Heads

Elemax 2600 silicone AWB coating will cover properly-driven screw heads when uniformly applied at the system film thickness. Screw heads that are under or over-driven must be treated using a trowel application of Elemax 5000 Liquid Flashing or additional coat of Elemax 2600 silicone AWB coating either prior to, or after application of the coating. When treating screw heads after coating application, sufficient cure time will be required for the coating to firm up enough to allow trowel application of sealant. This cure time will vary from minutes (summer's heat and humidity) to overnight in some cases (winter's cold and lower RH).

Sheathing Joints

All sheathing joints must be treated utilizing one of the two methods below (based on joint width). The sheathing joints can be treated prior to or after the application of Elemax 2600 silicone AWB coating. When treating joints after coating application, sufficient cure time will be required for the coating to firm up enough to allow trowel application of sealant. This cure time will vary from minutes (high heat and humidity) to overnight in some cases (cold temperatures). Reference also MPM sheathing joint detail.

- Sheathing joints up to 1/2" (13 mm) can be treated with a bridge-joint of Elemax 5000 Liquid Flashing by troweling the sealant over the joint seam to a nominal 1 1/2" (38 mm) centered on the joint while maintaining a minimum thickness of 1/16" (2 mm). Sheathing joints greater than 1/4" (6 mm) and up to 1/2" (13 mm) require stud backing to be treated with Elemax 5000 Liquid Flashing
- Sheathing joints up to 1/2" (13 mm) can be treated with RF100 properly embedded in Elemax 2600 silicone AWB coating and centered on joint.
 - When embedding RF100 Reinforcing Fabric in Elemax 2600 silicone AWB coating, apply a liberal first coat (minimum of 10 mils) sufficient to saturate RF100 reinforcing fabric and extend at least 1" beyond RF100 reinforcing fabric width. Place RF100 reinforcing fabric in Elemax 2600 silicone AWB coating and apply a second coat (minimum of 10 mils) by roller of Elemax 2600 silicone AWB coating ensuring a pin hole-free application is achieved.

Static Joints > 1/2" (13mm), Expansion Joints and Drift Joints

Static joints can be treated by utilizing Elemax 5000 Liquid Flashing or Elemax 2600 silicone AWB coating as an adhesive reinforced with a strip of UltraSpan* UST2200 silicone transition sheet, centered on joint and extended a minimum 1" (25mm) onto wall.

- When using Elemax 2600 silicone AWB coating as an adhesive, apply a first coat (minimum of 10 mils) by roller in sufficient width to accommodate the UltraSpan UST2200 silicone transition sheet. Wait five minutes until coating becomes tacky and press the UltraSpan UST2200 silicone transition sheet into the coating. Apply a second coat of Elemax 2600 silicone AWB coating (minimum of 10 mils) immediately over the UltraSpan UST2200 silicone transition sheet.

Transitions

The AWB system shall be made continuous at or beyond terminations, transitions, openings, changes in plane and perimeters. This can be accomplished using Elemax 5000 Liquid Flashing, RF100 reinforcing fabric properly embedded in Elemax 2600 silicone AWB coating sealant or a combination of UltraSpan transition strips with Elemax 2600 silicone AWB coating. Refer to GE AWB system details for installation recommendations at transitions, seams, penetrations and other features.

Elemax* 2600 silicone air and water-resistive barrier coating

FILM THICKNESS

Elemax 2600 silicone AWB coating may be applied as a single coat application by spray, however roller application may require two separate coats to achieve the full wet film thickness (WFT) requirement. The applied thickness of Elemax 2600 silicone AWB coating should be measured (while still wet) using a wet film thickness gauge to verify that the right amount of material is being applied to the wall. The wet and dry film thickness requirements of the system are shown in the table below:

Wet Film Thickness (WFT) Requirement	Final Dry Film Thickness (DFT)
19 mils (480 microns)	17 mils (430 microns)

COVERAGE RATES – Elemax 2600 Silicone AWB Coating

The actual coverage rate of Elemax 2600 silicone AWB coating can vary based on substrate, application equipment, project conditions and waste. To identify coverage rates based on the actual project substrates, conditions and equipment that is planned on being used a test mockup is recommended. Theoretical maximum coverage rate at 17 mils (430 microns) DFT is 85 ft²/gal (7.9 m²/gal). The following approximate coverage rates have shown to be attainable:

SUBSTRATE	ft ² per gallon	m ² per gallon
Smooth surfaces (similar to fiberglass-faced sheathing)	70 - 80	6.5 - 7.4
Masonry surfaces (similar to CMU)	60 - 70	5.6 - 6.5

USAGE RATE – Elemax 5000 Liquid Flashing

When used for sheathing joint treatment (1/16" [2 mm] thick bead troweled to nominal 1 1/2" [38 mm] width centered on joint), the following estimates are theoretical and do not take into consideration factors such as: joint gap width, substrate texture or material waste.

- One cartridge yields approximately 16 lf (4.8 m)
- One sausage foil yields approximately 32 lf (9.8 m)
- One 2-gallon pail yields approximately 412 lf (126 m)

When used for rough opening treatment or general detailing (1/16" [2 mm] thick x 6" [152 mm] width trowel application), the following estimates are theoretical only and do not take into consideration factors such as: construction geometry, substrate texture or material waste.

- One cartridge yields approximately 4 lf (1.2 m)
- One sausage foil yields approximately 8 lf (2.4 m)
- One 2-gallon pail yields approximately 103 lf (31 m)

REPAIRS

The most effective air barrier system is a complete system without gaps, holes, or damage therefore inspect the AWB system before covering and repair any punctures or damaged areas. Ensure that the area to be repaired is clean and dry before proceeding with repairs. Touch up and repairs to the Elemax 2600 silicone AWB coating can be accomplished using brush, spray or roller and should take place after the coating has sufficiently cured such that the coating is firm to the touch and tack free. Repairs can be accomplished using either:

- Elemax 2600 silicone AWB coating for small or minor damage such as pin holes, scrapes, etc.
- Elemax 5000 Liquid Flashing for small or minor damage such as pin holes, scrapes, screw heads, etc. including larger holes up to 3/8" (10 mm) or other breached areas.
- OR -
- An appropriately-sized piece of UltraSpan* UST2200 transition sheet bonded in place with either sealant or Elemax 2600 silicone AWB embedment coating. When UltraSpan UST2200 transition sheets are used for repairs, terminate all edges of UltraSpan silicone transition sheets with a small bead of sealant troweled smooth.

Elemax* 2600 silicone air and water-resistive barrier coating

APPLICATION EQUIPMENT

Elemax 2600 silicone AWB coating can be applied by brush and roller; including power rollers. Elemax 2600 silicone AWB coating can also be dispensed directly from pails and drums using air, electric or engine-powered application equipment. Elemax 2600 silicone AWB coating cures in the presence of atmospheric moisture thus spray equipment used to process Elemax 2600 AWB coating:

- Must be free of water prior to loading product into the equipment.
- Must be designed to operate safely at the pressures required to deliver Elemax 2600 silicone AWB coating; typically requires 3000 psi (207 bar) at the tip.
- Should contain hoses that are solvent resistant, ideally with a vapor lock design if product is intended to remain in the lines for extended periods of time.
- Appropriate Personal Protective Equipment should be used during application.

Contact an MPM technical services representative for additional equipment recommendations and information.

Limitations

Elemax 2600 silicone AWB coating should not be considered for:

- Below-grade applications.
- Wet, damp, frozen or dirty/contaminated surfaces.
- Excessively basic or acidic substrates.
- Application when it is raining or if inclement weather is imminent or likely within two (2) hours.

Emergency Service

Momentive Performance Materials maintains an around-the-clock emergency service for its products. The American Chemistry Council (CHEMTREC) and ChemCare24 International also maintain an around-the-clock emergency service for all chemical products.

Location	Momentive Performance Materials Products	All Chemical Products
North America	1.518.233.2500	CHEMTREC: 1.703.527.3887 (collect)
At sea	Radio U.S. Coast Guard, which can directly contact Momentive Performance Materials at 1.518.233.2500 or CHEMTREC at 1.800.424.9300.	

DO NOT WAIT. Phone if in doubt. You will be referred to a specialist for advice.

Elemax* 2600 silicone air and water-resistive barrier coating

CUSTOMER SERVICE CENTERS

North America

E siliconeorders@momentive.com

Specialty Coatings, UA and Silanes

T 1.866.275.4372

F 1.614.986.2489

Visit us at www.ge.com/silicones

DISCLAIMER:

THE MATERIALS, PRODUCTS AND SERVICES OF MOMENTIVE PERFORMANCE MATERIALS INC. AND ITS SUBSIDIARIES AND AFFILIATES (COLLECTIVELY "SUPPLIER"), ARE SOLD SUBJECT TO SUPPLIER'S STANDARD CONDITIONS OF SALE, WHICH ARE INCLUDED IN THE APPLICABLE DISTRIBUTOR OR OTHER SALES AGREEMENT, PRINTED ON THE BACK OF ORDER ACKNOWLEDGMENTS AND INVOICES, AND AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION, RECOMMENDATIONS, OR ADVICE CONTAINED HEREIN IS GIVEN IN GOOD FAITH, SUPPLIER MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING ITS PRODUCTS, MATERIALS, SERVICES, RECOMMENDATIONS OR ADVICE. EXCEPT AS PROVIDED IN SUPPLIER'S STANDARD CONDITIONS OF SALE, SUPPLIER AND ITS REPRESENTATIVES SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS OR SERVICES DESCRIBED HEREIN. Each user bears full responsibility for making its own determination as to the suitability of Supplier's materials, services, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating Supplier's products, materials, or services will be safe and suitable for or waive any provision of Supplier's standard Conditions of Sale or this Disclaimer, unless any such modification is specifically agreed to in a writing signed by Supplier. No statement contained herein concerning a possible or suggested use of any material, product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Supplier covering such use or design, or as a recommendation for the use of such material, product, service or design in the infringement of any patent or other intellectual property right.



is a trademark of General Electric Company and is used under license by Momentive Performance Materials Inc.

Momentive and the Momentive logo are trademarks of Momentive Performance Materials Inc.
*Elemax, UltraSpan, SWS and SilPruf are trademarks of Momentive Performance Materials Inc.
Copyright 2016 Momentive Performance Materials Inc. All rights reserved.

161-108-00E-GL
TDS-ELMX2600-EN (2/16)