

TECHNICAL DATA- GE-GMVB

Moisture Vapor Barrier G-Guard

PRODUCT DESCRIPTION:

GE-GMVB is a two component 100% solids epoxy seal coat that can help control moisture vapor emission rates up to 20 lb/24hr/1000 ft², prior to application of Vinyl sheets, Tiles, Cementitious overlays, Terrazzo, Wood veneers, Carpet or polymeric coating systems. The product meets the ASTM F3010 product requirements for vapor permeance at the recommended thickness.

RECOMMENDED FOR:

Recommended for indoor horizontal concrete.

SOLIDS BY WEIGHT:

100% (+/- 1%)

SOLIDS BY VOLUME:

100% (+/- 1%)

VOLATILE ORGANIC CONTENT:

zero

COLORS AVAILABLE:

Clear- gardner color 1-3

RECOMMENDED FILM THICKNESS:

17 mils

COVERAGE PER GALLON:

94.4 square feet per gallon @ 17 mils

PACKAGING INFORMATION:

3-gallon kit (volume approximate)

15-gallon kits (volume approximate)

MIX RATIO:

9.25 pounds (1 gallon) part A to 4.15 pounds (0.50 gallons) part B (volumes approx.)

SHELF LIFE:

1 year in unopened containers

ADHESION:

350 psi @ elcometer (concrete failure, no delamination)

VISCOSITY:

Mixed= 500-1000 cps (typical)

DOT CLASSIFICATIONS:

Part A "not regulated"

Part B "CORROSIVE LIQUID N.O.S., 8, UN1760, PGIII"

HARDNESS:

Shore D= 75-80

CURE SCHEDULE:

pot life (150-gram mass) 28-38 minutes @ 70°F

tack free (dry to touch) 6 - 10 hours @ 70 °F

recoat or topcoat.....12-16 hours @ 70°F

full cure (heavy traffic) 3-7 days @ 70°F

APPLICATION TEMPERATURE:

60-90 degrees F with relative humidity below 90%.

PRIMER:

None Recommended

TOPCOAT:

Various topcoat products and systems can be used.

LIMITATIONS:

- * Environmental factors like high humidity, exposure to chemicals, or specific lighting types may influence color stability.
- * The color of the product might differ between batches.
- * This product does not maintain its color when exposed to UV light.
- * The temperature of the base material should be at least 5°F higher than the dew point for application.
- * Utilize a high-quality roller for optimal application results.
- * New concrete should be allowed to cure for a minimum of 10 days before application, having at least 3,500 psi compressive strength and 200 psi tensile strength.
- * Conduct tests to ensure moisture vapor emission rates are under 20 lb/24hr/1000 ft² according to ASTM F1869, or within 75% to 95% per ASTM F2170.
- * The surface should be strong, clean, devoid of laitance, and have a minimum CSP3 surface profile according to the International Concrete Repair Institute.
- * Avoid water exposure to the product until it has fully cured.
- * This product is not designed to counteract hydrostatic or osmotic water pressures.
- * The manufacturer disclaims responsibility for damage due to trapped moisture/water beneath coatings that have a low water vapor transmission rate, which may cause concrete degradation and cohesive failure at the concrete interface.
- * The product will not avert failures due to inadequate surface preparation, incorrect application, alkaline silica reaction (ASR), ionic compounds, or soluble salts in the concrete.
- * The manufacturer is not liable for defects resulting from cracks, pinholes, or damages from usage. Cracks and joints are excluded from warranty coverage.
- * There is no warranty for products not endorsed by or produced by the vapor barrier manufacturer.
- * Unreacted alkaline silicate compounds in the concrete may cause osmotic action/water vapor transmission, leading to the migration of water-soluble compounds to the surface, which could disrupt the bond of the applied system and prevent the coating's penetration into the substrate.
- * Warranty claims must be submitted in writing to the manufacturer within thirty days upon discovering any warranty breach.
- * In case of warranty breach, the exclusive remedy is the replacement or repair of the affected materials only.
- * Warranty does not cover applications not adhering to recommended surface preparation, mixing, application, and covering guidelines.
- * Concrete slabs must be at least 4 inches thick and equipped with an effective vapor barrier.
- * The manufacturer does not guarantee bond and penetration unless core tests are conducted and submitted by the project owner, and a lab confirms no bond or penetration impediments.
- * Listed physical properties represent typical values, not specific specifications.
- * Refer to page 3 for detailed limitations on liability and warranty.

MIXING AND APPLICATION INSTRUCTIONS_(GE-GMVB)

- 1) **PRODUCT STORAGE:** Store product at 65°F to 85°F for at least 48 hours prior to use.
- 2) **SURFACE PREPARATION:** Avoid using this product on gypsum compounds or lightweight concrete. The concrete should conform to the standards set out in the ACI Committee 201's "Guide to Durable Concrete." Conduct moisture vapor tests according to ASTM F1869 to ensure vapor pressure is below 20 lb/24hr/1000 ft² or within 75% to 95% as specified by ASTM F2170. ASTM F1869 testing is appropriate only when HVAC systems operate continuously for at least a week before and during the testing period. For each 1000 square feet of flooring, perform at least one moisture test. Remove all dirt, foreign substances, sealants, oils, solvents, paints, waxes, grease, leftover adhesives, curing agents, silicate penetrators, salts, efflorescence, mold, mildew, laitance, or any materials that could compromise adhesion to ensure a secure bond to the base. Fill any surface depressions or irregularities and seal cracks, grooves, or other static control joints prior to membrane application and after preparing the surface. Clean cracks and voids with a wire brush and vacuum, expanding narrow cracks to at least a quarter-inch depth and width using an angle grinder. Prime the edges before filling with a mixture of vapor barrier liquids and a thickener to achieve a paste-like consistency. Very narrow cracks can be directly coated with the vapor barrier during application. Shot blasting is recommended for optimal surface preparation, achieving a minimum CSP #3 profile according to ICRI guidelines. Ensure the concrete substrate is smooth to avoid uneven application thicknesses and allow it to dry for 16-24 hours post-preparation. Conduct a tensile bond strength mockup test on at least 100 ft² using the same application methods and equipment planned for the full installation, adhering to D7234 test methods. The bond strength should reach or surpass 200 psi with failure occurring in the concrete itself before moving forward. For areas exceeding 5,000 square feet, consider additional tests like X-ray diffraction, infrared spectroscopy, ion chromatography, and petrographic analysis to assess the concrete's condition and contamination levels before installation. When applying the membrane, ensure the vertical edges of expansion joints are coated and dried before inserting the joint material. Respect all dynamic, moving joints and cracks throughout the flooring system, filling them with an appropriate elastomeric material for the usage conditions. The joint installation should extend through the entire flooring system, using backer rod material in joints to maintain proper depth for the joint filler. Poor surface preparation may leave contaminants, causing pinholes, bubbles, fish eyes, or other flaws that could lead to coating detachment or failure.
- 3) **PRODUCT MIXING:** This product requires a mixing ratio of 9.25 pounds of part A to 4.15 pounds of part B. It is available in pre-measured kits designed for mixing as provided. It is strongly advised against dividing the kits unless precise weighing tools are accessible. Stir each component separately before blending. Once mixed, ensure thorough integration using slow-speed equipment, like a jiffy mixer, until achieving a uniform, streak-free consistency. Take care to prevent air entrapment in the mixture. Subsequently, transfer the blend to a different container (the transfer pail) for a final mix prior to application on the concrete base. Failure to mix correctly could lead to product malfunction.
- 4) **PRODUCT APPLICATION:** The catalyzed mix can be spread using a brush or roller. Additionally, it's possible to apply the mixture with an appropriate serrated squeegee, followed by back rolling to ensure the thickness meets the specified guidelines. When using a serrated squeegee for application, ensure to back roll perpendicular to the squeegee's application path. Keep both the temperature and humidity within the advised levels throughout the application and drying stages. Avoid any heating devices that emit carbon dioxide. For optimal application, roll the product in one direction and then reverse the roll to ensure thorough integration into the concrete. If air gets trapped due to the concrete's condition or

MIXING AND APPLICATION INSTRUCTIONS (GE-GMVB)

excessive mixing, use an air release roller tool before the coating sets to eliminate the trapped air. Upon application to the concrete, outgassing may cause the formation of pinholes or voids. Should these imperfections arise, a second application is necessary for their removal. Grind the affected spots, clean the debris, ensure the area is dry, and apply the coating again. For persistent issues with pinholes or voids that a recoat cannot fix, fill these gaps by troweling in a mixture of the material to achieve a smooth, even surface.

vapor barrier liquids and a thickening agent, (making a paste like consistency) into the pin holes or voids. The moisture vapor barrier must be applied to form a continuous monolithic void free application. Thinner applications than recommended may result in insufficient moisture vapor protection.

5) **COATING OR COVERING THE MOISTURE VAPOR BARRIER:** To ensure strong adhesion, employ a product or primer designed for use on non-porous surfaces when applying it to the moisture vapor barrier. A detailed inspection of the minimum 100 ft² mock-up, applied using the identical techniques and tools intended for the full project, is crucial to verify the compatibility and adherence of the system meets the requirements for the space's designated purpose. Regarding the moisture vapor barrier coating, refrain from adding any coatings, overlays, or other finishes until the base material has adequately hardened, typically within 12-16 hours at 70°F. Consider that lower temperatures or a cooler base may necessitate a longer curing period. Adequate curing is generally achieved when pressing directly on the coating with your thumb does not leave an imprint. The time frame for applying a subsequent coat to the moisture vapor barrier should not exceed 48 hours.

6) **CLEANUP:** Use xylol

7) **FLOOR CLEANING:** Warning! Certain cleaning agents might alter the color of the installed flooring system. Conduct a trial with each cleaner on a small section, applying your cleaning method. If no adverse effects are observed, you may proceed to clean using the tested product and method.

8) **RESTRICTIONS:** Limit floor usage to light foot traffic and avoid exposure to strong chemicals until the coating has completely hardened (refer to the technical specifications for full curing time). It's advisable to keep the floor dry throughout the entire curing period. Depending on the comprehensive application of the system, the surface might become slippery, particularly if wet or soiled; ensure the surface is kept clean and dry.

NOTICE TO BUYER: DISCLAIMER OF WARRANTIES AND LIMITATIONS ON OUR LIABILITY

We warrant that our products are manufactured to strict quality assurance specifications and that the information supplied by us is accurate to the best of our knowledge. Such information supplied about our products is not a representation or a warranty. It is supplied on the condition that you shall make your own tests to determine the suitability of our product for you particular purpose. Any use or application other than recommended herein is the sole responsibility of the user. Listed physical properties are typical and should not be construed as specifications. NO WARRANTY IS MADE, EXPRESSED, OR IMPLIED, REGARDING SUCH OTHER INFORMATION, THE DATA ON WHICH IT IS BASED, OR THE RESULTS YOU WILL OBTAIN FROM ITS USE. NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, THAT OUR PRODUCT SHALL BE

MERCHANTABLE OR THAT OUR PRODUCT SHALL BE FIT FOR ANY PARTICULAR PURPOSE. NO WARRANTY IS MADE THAT THE USE OF SUCH INFORMATION OR OUR PRODUCT WILL NOT INFRINGE UPON ANY PATENT. We shall have no liability for incidental or consequential damages, direct or indirect. Our liability is limited to the net selling price of our product or the replacement of our product, at our option. Acceptance of delivery of our product means that you have accepted the terms of this warranty whether or not purchase orders or other documents state terms that vary from this warranty. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sales of our products. Our products contain chemicals that may CAUSE SERIOUS PHYSICAL INJURY. BEFORE USING, READ THE MATERIAL SAFETY DATA SHEET AND FOLLOW THE PRECAUTIONS TO PREVENT BODILY HARM.

COPYRIGHT 2/29/24

