

Technical Data

FGP MV 2112

100% Solids Epoxy Moisture Vapor Barrier

DESCRIPTION

Floorguard® FGP-MV 2112 is a 100% solids, two component epoxy sealer that offers superior moisture vapor control, with a perm rating of <.10, which is a Class I Vapor Diffusion Retarder, and rates of up to 20 lb/24hr/1000 ft². May be installed prior to applying Tiles, Terrazo, Wood veneers, polymeric coating systems, Cementitious overlays, carpet, or Vinyl sheets. MVB 2112 meets the ASTM F3010 requirements for vapor permeance at the thickness that's recommended.

ADVANTAGES

- **Helps control movement of moisture**
- **Recommended for indoor horizontal concrete**
- **Compatible with a variety of types of flooring**
- **Easy Application**

CONSIDERATIONS

- **Substrate temperatures must be 5°F above dew point**
- **Slabs must be at least 4" thick with a functioning vapor barrier**
- **All new concrete must be cured for at least 10 days prior to application with a minimum compressive strength of 3,500 psi and a minimum tensile strength of 200 psi**
- **Testing must be performed to confirm a moisture vapor emission rate below 20 lb/24hr/1000 ft² per ASTM F1869 or between 75% and 95% for ASTM F2170**
- **Product color may vary from batch to batch**

Physical Properties

Solids by Weight	100% (+/- 1%)
Solids Content, %vol	100% (+/- 1%)
VOC	None
Colors	Clear
Recommended Film Thickness	17 - 18mils
Coverage per Gallon	90-94 sq.ft. per gallon
Packaging Information	3 gallon and 15 gallon kits
Mix ratio	2 parts A to 1 part B by Volume
Abrasion Resistance	Taber abrasor CS-17 calibrase wheel with 1000g total load & 500 cycles= 36 mg loss
Shelf Life	1 year in unopened containers
Flexural Strength	12,200 psi @ ASTM D790
Adhesion	350 psi @elcometer (concrete failure, no delamination)
Viscosity	Mixed=500-1000cps (typical)
DOT Classifications	Part A: "not regulated" Part B: "CORROSIVE LIQUID N.O.S., 8, UN1760, PGIII
Hardness	Shore D=75-80
Application Temp	60-90°F, with relative humidity below 90%

Cure Schedule: (70°F)

Pot Life	25-38 Min. (at 70°F)
Tack free (dry to touch)	5-9 Hours
Recoat or topcoat	11-16 Hours
Full Cure (Heavy Traffic)	3-7 Days

Limitations

- Colors or gloss may be affected by high humidity, low temperatures, chemical exposure, or exposure to lighting such as sodium vapor lights.
- For best results use a 3/4" nap roller
- This product is not UV stable
- Surface must be durable, clean, free of laitance with a surface profile minimum of CSP3 as per the International Concrete Repair Institute
- Do not expose this product to water until fully cured
- Manufacturer is not responsible for failures caused by cracks and pin holes or damage caused by use. Cracks and joints are not covered by any warranty
- Product is not suitable for preventing hydrostatic or osmotic water conditions
- Physical properties are typical values and not specifications
- Any claim of warrant breach, must be provided to the manufacturer in writing within thirty days of the discovery of a breach of warranty. In the event of any breach of warranty, customers sole and exclusive remedy shall be replacement or repair of materials actually damaged (i.e., affected areas only) No warrant shall cover any application that does not follow the surface preparation, mixing, application and covering recommendations and procedures
- Manufacturer does not warrant penetration and bond where cores are not tested unless and until project owner submits cores and lab establishes that no impediment to bond or penetration
- Manufacturer is not responsible for entrapped moisture and/or water underneath applied coatings with a low rate of water vapor transmission which can deteriorate concrete resulting in a cohesive failure within the concrete surface.
- Product is not warranted for any products not recommended by or manufactured by the vapor barrier manufacturer
- See page 3 for limitations of our liability and warranty
- Any un-reacted alkaline silicate compounds within the concrete can result in osmotic action/water vapor transmission that will channel these water soluble compounds to the surface where they can effectively break the bond of the applied system as well as preventing penetration of the coating into the substrate
- Product will not prevent failures from insufficient surface preparation, improper applications, alkaline silica reaction (ASR), ionic compounds or soluble salts in the concrete

MIXING AND APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION: When coating over concrete, it must meet acceptable industry standards as defined in ACI committee 201 report "Guide to Durable Concrete". Do not coat over light weight concrete or Gypsum compounds. Verify that the vapor pressure is below 20lb/24hr/1000 ft² by performing a vaportest per ASTM F1869. Test that the humidity is above 75% and below 95% by conducting the ASTM F2170 test. When HVAC is on 24/7, the ASTM F1869 may only be used at least one week before and during testing. When testing for moisture, there shall be at least one test performed for each 1000 sq.ft. of flooring that will be coated. To assure a trouble free bond to the substrate, all contaminants that can affect the adhesion must be removed before surface preparation. Examples of such bonding inhibitors are: Sealing compounds, dirt, foreign contaminants, salts, efflorescence, curing compounds, residual adhesives, silicate penetrating compounds, grease, oil, wax, paint, solvent, mildew, mold, laitance or any foreign materials. If there are any divots or pits, or any irregularities, as well as any grooves, surface cracks, or any non-moving control joints, fill them in smooth with MV 2112 after the preparation has been done to the concrete. Use a wire brush to clean out any cracks or divots, then vacuum. Very narrow cracks can be flooded with vapor barrier coating when applied. Narrow cracks may need to be widened to a 1/4 in deep and wide using an angled griner. The cracks must be primed with the vapor barrier coating before troweling in a gel mixture. Use the vapor barrier product make gel, by adding a thickening agent, then trowel into the cracks. The preparation method of choice is shot blasting to provide a suitable profile to a minimum CSP#3 per ICRI Guidelines. To prevent irregularities in application thicknesses, make sure concrete substrate is smooth. After surface preparation, allow the concrete to dry for 16-24 hours. It is recommended that a test patch installation for the moisture mitigation system of a minimum 100 sq.ft. using the same methods and equipment that will be used for the entire floor be applied and tested for tensile bond strength to the concrete following test method D7234. The results must equal or exceed 200 psi with failure in the concrete before proceeding. For installations over 5,000 sq.ft., core samples and additional testing can be evaluated. Examples of testing are: infrared spectroscopy analysis, ion chromatography analysis, X-ray diffraction mineralogical analysis, and petrographic analysis. The condition of the concrete and degree of contamination of the concrete can be determined by these additional tests. Once surface preparation is complete, coat the vertical edges of clean and sound expansion joints and allow to dry before installing expansion joint products. All dynamic, moving joints and cracks must be honored through the entire flooring system applied and filled with an elastomeric material that is suited for the general conditions of use. The joint must be installed so that the joint runs through the entire flooring system to be applied. When installing backer rod material, maintain adequate depth in the joint for the applied joint filling. Inadequate surface preparation can result in leaving contaminants which can cause bubbles, pin holes, fish eyes or other deficiencies that can cause disbonding or failure of coating.

PRODUCT STORAGE: Product must be stored in an area that will bring the product to room temperature prior to using. Continuous storage should be between 65 and 90 degrees F. Keep from freezing

PRODUCT MIXING: This product has a mix ratio of 9.25# part A to 4.15# part B, which is a two part A to one part B mix ratio by volume. Each kit is premeasured and should be mixed as supplied in the kit. It is highly recommended that the kits not be broken down unless a suitable weighing equipment is available. Prior to mixing product, pre-mix both the Part A and the part B. After the two parts are combined, mix well with slow speed mixing equipment until the material is thoroughly mixed and streak free. Avoid whipping air into the coating. Improper mixing may result in product failure. After mixing the product, pour the mixed material into another pail, and remix once more prior to pouring onto concrete substrate.

Product Application: Use a brush or ¾" nap roller to apply the mixed material. This product can be applied using a knotted, or serrated squeegee, then back rolled to maintain appropriate thickness that is recommended. If using a knotted squeegee, back roll the product at a right angle to the direction of the squeegee application. Maintain temperatures within the recommended ranges during the application and curing process. Do not use heating equipment that would produce carbon dioxide. It is best to roll out the product in one direction, then backroll the material in the opposite direction, making sure the material is work. Concrete conditions and/or over aggressive mixing, can cause air entrapment. If this occurs, use an air release roller tool prior to the material tacking off, to remove the air entrapment in the coating. Outgassing, are pin holes or voids that develop when air is displaced, can occur, when the material is mixed and applied to the concrete. If the pin holes or voids occur, these areas must be grinded, and the area is clean and dry, and another coat must be applied. If the pin holes or voids are large, then, they must be filled in first by making a small batch of the vapor barrier product, along with a thickening agent, and this mixture must be troweled in. Once they have been filled in, then another coat of the vapor barrier must be applied to the entire floor, to form a continuous, void free, application.

Recoat or Topcoating: Installing multiple coats of this product is acceptable. If recoating this product, make sure that the first coat of the product is fully cured before coating over it. Refer to the cure schedule as a guideline to follow, however it is best to test the coating before recoating or topcoating. At 70° F, it is typically 12-16 hours, but colder temperatures require longer cure times before product can be recoated. This is done by pressing your thumb on the coating to ensure a fingerprint impression is not visible. If there is no impression visible, then coating the floor can be done. When coating over the vapor barrier, use a product or primer suitable for application over a non-porous surface. It is recommended to test the product, by coating over a 100 sq.ft. area, using the same methods and equipment that will be used on the entire floor. Thoroughly inspect the floor to test for product compatibility and adhesion of the entire floor. There is a maximum 48 hour window for recoating the moisture barrier product.

Cleanup, Floor Cleaning and Restrictions: Use solvents for cleanup. When cleaning the floor, CAUTION! Some cleaners may affect the color of the installed floor. Test each cleaner used in a small area, ensuring no damage occurs. Restrict the use of the floor to light traffic and non-harsh chemicals until the floor is fully cured, refer to the cure schedule. Allow the floor to remain completely dry during the curing process.

Restrictions: Until the coating is fully cured, restrict the use of the floor to light traffic and non-harsh chemicals (see technical data under full cure). The floor must be dry for the full cure cycle. When wet or contaminated, floor may be slippery; keep surface dry and clean.

Warranty

Floorguard Products® warrants 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 suitability of our product for your particular purpose. 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 sale of our products. Our products contain chemicals that may CAUSE SERIOUS PHYSICAL INJURY. BEFORE USING, READ THE MATERIAL SAFETY DATA SHEET AND FOLLOW ALL PRECAUTIONS TO PREVENT BODILY HARM.