



MOISTURE

VAPORSEAL™ HM



DESCRIPTION

VAPORSEAL™ HM is a two part, 100% solids, epoxy moisture mitigation system designed to control vapor emissions in concrete.

VAPORSEAL HM is an effective barrier to moisture up to 100% relative humidity and is rated under 0.1 perms per ASTM E96 testing. VAPORSEAL HM's low viscosity allows for fast and easy installation over concrete.

VAPORSEAL HM utilizes advanced epoxy resin systems, is VOC compliant, and resistant to high pH levels making it a perfect solution for concrete subject to high moisture content (RH).

FEATURES AND BENEFITS

- One coat application
- Advanced epoxy resin system addresses vulnerability to osmotic blistering
- Compliant with ASTM F3010-13; Permeability less than 0.1 perm at 12 mils in dry film thickness (DFT)
- Is an effective barrier against migration of alkalinity from concrete to flooring adhesives
- Low viscosity system for easy installation
- Pre-measured containers eliminate the need to measure mix ratios

VAPORSEAL HM may be applied on green concrete as quickly as 24 hours after placement. Concrete surface must be dry, with no curing compounds or surface treatments applied. Subsequent shrinkage (cracking) or movement of green concrete slabs treated with Vaporseal HM are not the responsibility of Dependable, LLC.

PACKAGING

3.2 US Gallon Kit packaged in a box as;
3.5 US Gallon Pail for Part A (2.2 G Resin)
1 US Gallon Jug for Part B (1 G Hardener)

CHARACTERISTICS

Color:	Transparent light yellow (Part A) Transparent amber (Part B)
Composition:	2-part, 100%-solids epoxy
Shelf Life:	2 years when stored in original, unopened packaging in a dry place at 40°F to 95°F (4°C to 35°C)
VOC Content:	46 g per L
Viscosity:	190 to 230 cps
Permeability:	<0.1 perm at ≥ 12 mils DFT per ASTM E96-05
Reduction of Moisture Vapor:	> 96% per ASTM E96-05 (12 mils DFT)
Pull-off adhesion/bond strength:	> 1,000 psi (6.90 MPa) with failure in concrete substrate (at 28 days per ASTM D7234)
Resistance to High Alkalinity (pH 14)*:	14-day spot test, covered - no effect 14-day spot test, uncovered - no effect 14-day immersion - no effect
Consistency:	Pourable liquid
Placement Time:	20 minutes
Drying Time@ 73°F (23°C) until tack-free (the time required before permitting walking on the surface or subsequent installations):	8 to 9 hours
Flash Point (Seta Flash):	> 199°F (93°C)
Accept Foot Traffic:	6 hours
Coverage:	On grade: 425 sq. ft. per kit@ 12 mils Above Grade: 700 sq. ft per kit@ 7 mils**
Storage:	Keep product stored in unopened container. Keep away from extreme heat or freeze conditions and between the temperatures of 65°F and 75°F.
ASTM E96 Test:	@ 12 mils application on concrete with CSP 3: < 0.1 perms
Treating areas with moisture vapor emission rating (MVER) of up to 25 lbs. (11.3 kg) per ASTM F1869, and relative humidity of up to 100% per ASTM F2170:	≥ 12 mils of DFT = 100 to 150 sq. ft. per U.S. gal. (2.45 to 3.67 m ² per L)***
CSI Division Classification:	Damproofing and Waterproofing 07 10 00

*Tested per ASTM D1308 with both a 10% and 30% solution of sodium hydroxide @ a pH of 14.

**Only applicable where vapor drive does not exist. Consult Dependable technical services for details.

***This is the typical number realized in field conditions. Coverage depends on the desired film build as well as the profile and porosity of the substrate.

PREPARATION AND APPLICATION

PREPARATION

VAPORSEAL HM is suitable for installation in concrete on floors with RH levels up to 100% RH.

- All floors should be tested per ASTM F-2170 (Standard Moisture Test Method for Determining Relative Humidity in Concrete) before installing VAPORSEAL HM. Other methods for testing moisture, including ASTM 1-1869-11 (Calcium Chloride test), are not accepted by Dependable and will not be considered for any warranty claims.
- Sources of external water infiltration that contribute to high moisture drive on slabs on or below grade should be identified and controlled prior to installing VAPORSEAL HM.
- Concrete surface must be dry prior to installing VAPORSEAL HM.
- Concrete must be 5°F or more above the dew point of the slab and rising at the time of installation.
- All concrete slabs must be structurally stable, sound, and clear of any contaminants or bond breakers prior to installing VAPORSEAL HM. Ensure all old adhesives, contaminants, curing compounds, bond breakers, oils, silicates, dust and sealers are completely removed. It is the responsibility of installer to utilize concrete core testing to identify potential use of silicates on slab, or in circumstances where alkali-silica reaction is suspected.
- After all slab repairs have been completed, mechanically prepare the concrete by shot blasting to a CSP of 3 prior to installing VAPORSEAL HM.
- Chemical preparation of the floor is not acceptable under any circumstances.
- Carefully vacuum the floor following mechanical preparation to ensure removal of dust, debris on the slab.

All leveling should be done over the VAPORSEAL HM. However, if the concrete is too uneven to provide a level film of VAPORSEAL HM, use SKIMCRETE® CP to fill any significant holes to provide a more uniform surface. After the SKIMCRETE CP has cured all repaired areas must be shot blast to a CSP 3. For instructions on how to install SKIMCRETE CP, consult our latest technical data sheet found on our website: www.floorprep.com.

JOINTS AND CRACKS

All expansion and isolation joints must be honored when installing VAPORSEAL HM. Applying VAPORSEAL HM to concrete surfaces and “welding” control joints with the VAPORSEAL HM may lead to slab relaxation, slab curl, cracking and subsequent issues with finished flooring. Dependable is not responsible for such occurrences (whether they lead to moisture intrusion or not). Where this is a concern contact Dependable Technical services prior to installation.

Hairline cracks may be covered with VAPORSEAL HM, and then covered with an underlayment. Any non-moving cracks 1/8” must be filled with a high modulus epoxy before installing VAPORSEAL HM. Consider adding sand to the High modulus epoxy for wider cracks.

Consult Dependable technical services prior to installing a topping over VAPORSEAL HM.

MIXING

Prior to mixing, ensure material is preconditioned to 65-75°F. Colder temps will increase material viscosity, mixing and set times.

Each unit of VAPORSEAL HM comes pre-measured with 3.2 gallons of epoxy: 2.2 Gallons of Resin (Part A) and 1 Gallon of hardener (Part B). Part B is packaged in a 1 gallon pail. After opening both containers add all of Part B into the Part A mixing container. Always mix VAPORSEAL HM as a full kit using the pre-measured quantities provided. Using a 300 RPM drill with an epoxy or paint paddle, thoroughly mix the product for at least 3 minutes to a streak free consistency. After mixing, immediately pour the entire contents on the floor in a ribbon pattern across the premeasured area when done. Do not leave mixed material in the mixing pail for more than 2 minutes after mixing. While mixing, avoid breaking the surface of the epoxy and introducing air into the mixture.

APPLICATION

Prior to mixing, measure a 425 sq. ft. area on grade/ 700 sq. ft. above grade (per kit) for material application. Immediately after the mixed VAPORSEAL HM is spread in ribbon pattern across the measured area, use a straight bladed squeegee to uniformly spread the material. Back roll the applied material with a dual cage roller using a 3/8” lint free roller. Ensure VAPORSEAL HM is spread uniformly to a 12 mil thickness.

In very rare cases where concrete exhibits extreme out-gassing, contact Technical Services for instructions.

CURE TIME

@ 73°F – 5-6 hours to tack free

@ 60°F – 12-15 hours

@ 50°F – 18-24 hours

Protect the area from foot traffic, dust and dirt until finished floor or underlayment installation is completed.

APPLICATION Continued

FLOOR AND UNDERLAYMENT INSTALLATION

After curing to a tack free condition, VAPORSEAL HM may receive floating floor systems without the need of further preparation. If a flooring adhesive is used, ensure the product is compatible with non-porous epoxy surfaces such as VAPORSEAL HM. A test area should always be performed prior to installing the entire floor to ensure compatibility.

For subsequent installation of an underlayment, utilize PRIMER A™ NEAT. Reference the PRIMER A Data sheet for installation over non-porous surfaces. After PRIMER A is applied and dry, apply a suitable Dependable underlayment to realize a full system warranty.

CLEAN-UP

Clean tools and equipment with soap and water or denatured alcohol immediately after using. Wash hands and skin with soap or industrial hand cleaner. Cured material must be removed mechanically.

LIMITATIONS / PRECAUTIONS

VAPORSEAL HM is intended for professional use only. VAPORSEAL HM has a placement time of 20 minutes when immediately spread on the concrete, colder temperatures may extend the working time of the product. Due to the exothermic chemical reaction, Failure to immediately pour mixed VAPORSEAL HM to the substrate will significantly reduce placement time.

- VAPORSEAL HM is not for use as a final wear surface or topping and must be covered by a finished floor.
- For interior applications only
- Not for use over gypsum underlayments. For fixing broken gypsum concrete: see Dependable's CONSOLICRETE™.
- Do not chemically clean a concrete slab prior to installing VAPORSEAL HM.
- Do not apply VAPORSEAL HM to a concrete slab if adhesive was ever applied to the slab.
- MVER may fluctuate within slab areas and can have significant seasonal variations.
- Do not apply over existing coatings, sealers or floor coverings.
- Do not apply where either slab or air temperature falls below 50°F (10°C) at or within 72 hours after installation.
- Do not use in environments where temperature will exceed 100°F.
- Do not apply to concrete slabs with less than 3000 psi compressive strength. (Consult DEPENDABLE Technical Services).
- Terrazzo strips may move and may corrode, therefore VAPORSEAL HM is not warranted over terrazzo strips. Remove Terrazzo strips and patch damaged areas prior to application of VAPORSEAL HM.

24 HOUR EMERGENCY: CHEMTREC® 1-800-424-9300 NON-TOXIC and NON-FLAMMABLE

Wear nitrile rubber gloves and eye protection while using this product. Avoid eye contact and contact with skin and wash thoroughly after handling. If eye contact occurs, flush with water for 15 minutes and consult a physician. Wash thoroughly after handling. Do not take internally. Keep out of the reach of children. See Safety Data Sheet for complete safety precautions.

If taken internally, call a physician. Technical Assistance:
Visit our website: floorprep.com or call 1-800-227-3434.

PROPOSITION 65

This material contains components listed by the State of California as components that are known to cause birth defects, cancer, or other reproductive harm

It is always recommended that other branded products are tested with Dependable's products prior to use.

WARRANTY:

Please fill out the form located at our website under the page Vaporseal HM, for our 10 year replacement warranty. Otherwise, Dependable's Vaporseal HM comes with our standard warranty listed below.

Dependable, LLC warrants to the initial purchaser only that the goods sold hereunder will be free from defects in material and workmanship and, except as otherwise set forth herein, will conform to the specifications provided. If any failure to meet this warranty appears within one year from the date of shipment of the goods, on the condition that Dependable, LLC. will correct any such failure by either replacing or repairing any defective goods, at Dependable, LLC's option. **THIS LIMITED WARRANTY DOES NOT COVER:** improper or defective slab construction, improper installation of the flooring, site preparation that is not in accordance with Dependable, LLC's requirements, substrate failure resulting in the delamination of the product, inhibiting contaminants being present that prevent proper performance or adhesion, cracks that develop after the installation of the product, product problems related to osmotic blistering or hydrostatic pressure, failure resulting from alkali silica reaction, or acts of God.

The preceding paragraphs set forth the exclusive remedy for all claims based on failure of or defect in the goods sold hereunder, whether such failure or defect arises before or during the warranty period and whether a claim, however instituted, is based on contract, indemnity, warranty, tort (including negligence), strict liability or otherwise. The forgoing warranty is exclusive and is in lieu of all other warranties whether written, oral, implied or statutory.



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