MVC-8

Moisture Vapor Control - 8 Hour Cure

Description

ENDURIT **MVC-8** is a one-coat, alkali-resistant, two-component, 100%-solids, zero VOC, epoxy coating that effectively stops moisture related problems with all types of floor coverings. ***ENDURIT*** **MVC-8** will reduce moisture vapor emission rates (MVER) of up to 25 lbs. per 1000 sq. ft. per 24 hours to below the limit of 3 lbs. per 1000 sq. ft. required by most finished flooring manufacturers.

ENDURIT **MVC-8** is a low odor, low viscosity, coating that reduces moisture vapor emission by penetrating into the concrete substrate and eliminating the pathways that allow moisture vapor to surface and condense. In addition to reducing the moisture vapor, ***ENDURIT*** **MVC-8** eliminates the high pH environment that attacks flooring adhesives.

Features and Benefits

- ☑ Effectively treats concrete substrates with MVER up to 25 lbs per ASTM F-1869 or up to 100% relative humidity per ASTM F-2170
- ☑ Single coat application for fast turnaround
- ☑ Low odor and VOC compliant for interior occupied spaces
- ☑ Alkaline resistant to prolonged exposure to pH of 14 per ASTM D-1308
- ☑ LEED MR and IEQ credit qualifying
- ☑ Cost effective treatment for high MVER floors
- ☑ Treats new concrete after 7 days

Areas of Application

ENDURIT **MVC-8** is designed to treat new or existing concrete floors with moisture and/or alkaline conditions that have been properly prepared to receive the coating. ***ENDURIT*** **MVC-8** is suitable to be used for long term protection of tile, vinyl composition tile (VCT), sheet-vinyl, wood, rubber, polyurethane and solid backed carpet, and other floor finishing products.

ENDURIT **MVC-8** has been used effectively in office, hospital, school, super-market, manufacturing, hangar, housing and many other environments where MVER and Alkalinity need to be controlled. ***ENDURIT*** **MVC-8** is for **PROFESSIONAL USE ONLY**.

Product Properties

Pot Life:	20 minutes @ 70° F
Cure Time:	8 hours @ 70° F
Solids Content:	100 %
VOC	0
Flash Point	> 200° F
Packaging:	1.5, 3 and 5 gallon kits
Storage:	Between 50° F and 90° F
Shelf Life:	one year in original sealed container

Surface Preparation

Concrete substrates to receive ***ENDURIT*** **MVC-8** must be structurally sound, stable, absorptive, and meet concrete standards as defined in the American Concrete Institute (ACI) Committee 201 Report "Guide to Durable Concrete". Surfaces must be free of adhesives, coatings, curing compounds, sealers, efflorescence, dust, grease, oils and any other material or compound that may interfere with adhesion or cure of the coating. Building envelope should be enclosed and environmentally controlled prior to coating application.

All patching, leveling materials, adhesives, and prior coatings must be removed prior to installing ***ENDURIT*** **MVC-8**.

Shot blast or mechanically prepare the concrete substrate to an International Concrete Repair Institute (ICRI) Concrete Surface Profile (CSP) of 3 to 4. Grinding should be performed only in areas inaccessible to shot blasting. Some forms of grinding may be allowed after consulting ***ENDURIT*** technical services. **ACID ETCHING IS NOT PERMITTED.**

After the concrete has been profiled to a CSP 3 to 4 the slab must be vacuumed free of all dust, dirt, and debris prior to the application of ***ENDURIT*** **MVC-8**. Sweeping compounds should not be used.

The concrete surface to receive the coating must be at least 5° F above the dew point temperature. Do not apply the coating when the relative humidity (RH) is above 95% or a dew point atmosphere condition exists.

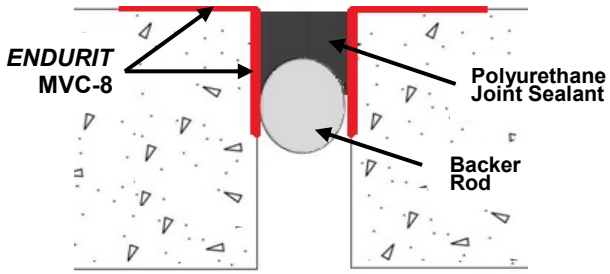
On concrete slabs that have had prior flooring failures, it is strongly recommended that core samples be taken to identify the cause of failure.

Joints and Cracks

Non-moving joints and cracks should be cleaned and/or routed out prior to application of ***ENDURIT*** **MVC-8**. These types of joints and cracks can be filled with ***ENDURIT*** **MVC-8** mixed with an appropriate epoxy thickening material.

Expansion joints should be honored using the detail shown below. Allow coating to cure before applying sealant.

Expansion Joint Detail with ***ENDURIT*** **MVC-8**



Application Instructions

The ***ENDURIT*** **MVC-8** is supplied in a two component system. The components are mixed at a ratio of 2:1 by volume. It is not recommended to mix partial containers of the system.

Pre mix the A-side material if any separation of the product is noted. Then pour the B-side component into the A-side container (the A side container is short filled to receive the B-side). Mix the combined materials with a Jiffy-type mixer for 3 minutes at low speed (360 rpm). After mixing pour the entire contents of the can onto the substrate.

ENDURIT **MVC-8** is applied in one coat. Using a notched squeegee spread to the coverage rates determined by the moisture vapor test results (see chart). Coverage rates can vary due to the surface profile, surface absorption, and density of the concrete. If no testing was performed, spread to 100 sq. ft. per gallon. ***ENDURIT*** **MVC-8** is then back-rolled at right angles to the squeegee application.

ENDURIT **MVC-8** should applied be at substrate and ambient temperatures between 50° F and 90° F. Ventilation should be provided during application and curing of the product.

Coverage Rates

Spread rates and wet film thickness (WFT) measurements are approximate and will vary do to porosity, density, absorption rate and surface profile of the concrete substrate being treated.

Moisture Vapor Test Results Using ASTM F 1869

Vapor Rate	Spread Rate
3 to 10 lbs/1000 ft^2/24 hrs	150 ft^2/gal (10 mils WFT)
10 to 15 lbs/1000 ft^2/24 hrs	125 ft^2/gal (13 mils WFT)
15 to 25 lbs/1000 ft^2/24 hrs	100 ft^2/gal (16 mils WFT)

Relative Humidity Test Results Using ASTM F 2170 or F 2420

Relative Humidity	Spread Rate
Up to 85%	150 ft^2/gal (10 mils WFT)
85 to 90%	125 ft^2/gal (13 mils WFT)
90 to 100%	100 ft^2/gal (16 mils WFT)

There is no correlation between the ASTM F 1869 (CaCL) and ASTM F 2170/F 2420 Relative Humidity(RH) test protocols. The CaCL test measures the moisture at the surface of the substrate while the RH test measures the moisture inside the substrate. The spread rate is determined by the test protocol used.

If more than one protocol is performed, the highest reading or measurement should be used to determine the spread rate.

Post Installation

Prior to the installation of any flooring system on top of the ***ENDURIT*** **MVC-8**, the surface must be clean and free of any dust, dirt, and debris. If recoating, it must be done within 14 days. If installing Methyl Methacrylates (MMA's or PMMA's), the maximum recoat time is 48 hours after the cure of the ***ENDURIT*** **MVC-8**. If the ***ENDURIT*** **MVC-8** is going to remain uncovered for an extended period of time, contact the ***ENDURIT*** technical service department prior to installing any type of floor covering system.

Cementitious underlayments or leveling compounds are not required over the ***ENDURIT*** **MVC-8** but are commonly used to level the surface in preparation for the final flooring system. ***ENDURIT*** **MVC-8** is not intended to be a floor leveling product but can be used as a final floor finish.

All underlayments must be applied on top of the cured ***ENDURIT*** **MVC-8**.

For proper adhesion of underlayments to the ***ENDURIT*** **MVC-8**, always use a suitable primer such as **LEVELEX-Primer**. Always test the adhesion of the underlayment to the cured ENDURIT **MVC-8** prior to installing any adhesive or final flooring system. If using another manufacturer's primer, consult with ***ENDURIT*** technical services for suitability.

Most flooring systems and adhesives may be directly applied to the cured ***ENDURIT*** **MVC-8**. All adhesive systems must be formulated for use on non-porous substrates. There will be no absorption of solvents or water into the ***ENDURIT*** **MVC-8**. Adhesives that are not designed to "flash off" prior to installing the finish flooring may require at least a 1/8 inch cemetitious underlayment. Check with the adhesive manufacturer as to the requirements for their products.

Safety Precautions

Consult the ***ENDURIT*** **MVC-8**material safety data sheet (MSDS) for more complete information on product health, safety, and handling.

Avoid skin and eye contact.

Eye Contact: Flush immediately with water and consult a physician.

Skin Contact: Wash immediately with soap and water.

Avoid prolonged exposure to vapors. Ventilation should be provided during installation and curing.

Warranties

BESSERN warrants that its product shall be in accordance with the specifications published in the current product data sheet. *BESSERN* will, in the event any of its products fail to meet their published specifications, replace those products proved to be defective.

BESSERN shall not be responsible for any incidental or consequential damages due to the breach of its warranties. Notwithstanding the foregoing, *BESSERN*'s sole liability hereunder shall not exceed the cost of the defective product originally purchased.

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www.bessern.com

BESSERN Building Products
1400 North Providence Road, Media PA 19063
Tel: 484-234-5035 • Fax: 484-234-5037