

MAXXON® MVP



MAXXON® MVP (Moisture Vapor Protection) is a unique 2-component, moisture tolerant, low viscosity, solvent free, chemically enhanced epoxy based product which reduces the passage of water vapor and moisture through slabs on or below grade, thus eliminating delamination of adhesives, floor coverings and coatings.

MVP reduces water vapor transmission levels of up to 25 lbs/24 hrs • 1000 ft² to 3 lbs or less for the installation of most floor covering systems including VCT, sheet vinyl, carpets, wood, laminates, epoxy, terrazzo, & synthetic gym flooring.

Note: Use Maxxon DPM in case of capillary infiltration of oil or other chemicals from the ground or to treat oil contaminated slabs or radon infiltration. Visit www.Maxxon.com/maxxon_dpm/data for information.

COMMONLY USED IN

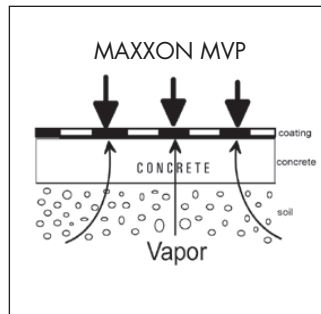
- Industrial/retail facilities
- Office buildings
- Hospitals and schools
- Residential slabs
- Food processing plants

TYPICAL APPLICATIONS

- Concrete slabs
- Cementitious underlayment (other than gypsum)
- Ceramic tiles with missing or damaged under-slab vapor barriers

Call Maxxon for:

- Slabs with floor heating
- Residential slabs below grade
- Garages



SAMPLE WATER VAPOR TRANSMISSION REDUCTION

TEST: ASTM E 96-95

| Test | Test Results | | |
|---|--|---------------------------------|-----------|
| | Before Untreated Control Wet Method | After Maxxon® MVP Wet Method | Reduction |
| Water Vapor Transmission: • lbs/24 hours • 1000 ft ² • grams/hour • m ² | 24.08 4.89 | Sample A, No. 1 0.18 0.04 | 99% |
| Permeance: • grams/Pa • s • m ² • grams/hour • ft ² in Hg ⁻¹ | 9.69x10 ⁰⁷ 7.02 | 7.34x10 ⁰⁹ 0.05 | |

MVP APPLICATION RATES

| Moisture Vapor Emission Rate (per ASTM F1869) | Relative Humidity (RH) (per ASTM F2170) | No. of Coats | Application Rate | Approx. Thickness | Yield per 2.4 gal kit |
|--|--|--------------|---|-------------------|-----------------------------------|
| | | | ft ² /gal (kg/m ²) | mils (mm) | ft ² (m ²) |
| up to 10 (up to 2.0) | <85% | 1 | 155 (0.29) | 10 (0.25) | 370 (33.4) |
| 10 to 15 (2.0-3.0) | 85-90% | 1 | 130 (0.35) | 12 (0.30) | 310 (28.8) |
| 15 to 25 (3.0-4.0) | 90-100% | 1 | 100 (0.45) | 16 (0.40)* | 240 (22.3) |
| Stand-alone coating on slabs | | 1 | 90 (0.50) | 18 (0.45) | 215 (20.0) |
| New concrete (min. 5 days old) | | 1 | 100 (0.45) | 16 (0.40) | 240 (22.3) |

* Required thickness to meet ASTM F3010

Note: All values theoretical. Application thicknesses are approximate. Some variations may apply due to porosity and absorption of substrate.

FEATURES & BENEFITS

- Vapor & water barrier
- Compatible with most flooring systems
- One-coat system with no sand broadcast
- Reduces moisture vapor emission rates of up to 25 lbs to 3 lbs or less
- Minimal downtime
- Next day flooring system installation
- Covers new concrete (min. 5 days old; keep in mind shrinkage cracks may occur)
- Can be applied to damp concrete

- High alkalinity barrier (pH 13-14)
- Low viscosity
- Does not support mold growth
- Indoors: low odor and non-flammable
- VOC Content of 0 g/L
- Helps contribute to LEED® (IEQ 4.2 = 1 pt)
- ASTM E96 perm rating ≤ 0.1
- Meets ASTM F3010 at specified yield of 16 mils

TECHNICAL DATA

| | |
|---|---|
| Material & Color | 2-component, clear epoxy |
| Density | 9.08 lbs/gal (1.09 ± 0.02 kg/L) |
| VOC Content | 0 g/L |
| Volume Solids | 100% |
| Flash Point: Part A | >212 °F (>100 °C) |
| Part B | >248 °F (>120 °C) |
| Mixing Ratio | 100:50 (by weight) |
| Viscosity | (600±80 MPa*s) at 77 °F (25 °C) |
| Pot Life, approx | 35 min. at 73 °F (23 °C) |
| Open to Foot Traffic | after 12 hrs at 73 °F (23 °C) |
| Recoat Time | min. 12 hrs at 73 °F (23 °C) max. 5 days, observe dew point |
| Working Temp | 50 °F–95 °F (10 °C–35 °C) |
| Curing Temperature | min. 50 °F (10 °C) |
| Full Strength | after 7 days at 73 °F (23 °C) |
| Adhesion to concrete ... | 500 psi (3.4 MPa) @ 7d (dry conc) (ASTM D4541 modified) Failure in substrate |
| pH 14 Resistance | Pass 14 day test. (ASTM D1308) |
| Average Critical | 1.00 W/cm - Passed = non-flammable Radiant Flux (CRF) (ASTM E648-03) |
| Methane Permeability | 2.20 [cm ³ /(m ² *d*bar)] at (ISO 15105-2) 36 mils (0.90 mm) thickness |
| Indoor Air Quality Control | Passed: VOC (0 mg/m ³) & (DIN EN ISO 16000) Formaldehyde emissions (<0.01 ppm) |

All data are average values obtained under laboratory conditions. In practical use temperature, humidity and absorbency of the substrate may influence the above given values.

TESTING FOR CONTAMINANTS

Request owner of facility to test slabs with unknown history (i.e. old slabs, existing floor failures, etc.) for contaminants (i.e. hydrocarbons, other organic compounds, un-reacted silicates, chlorides, ASR, sulfurous compounds, etc.) to determine suitability for MVP. If slabs test positive for contaminants, Maxxon DPM may be recommended in lieu of MVP, or neither one may be appropriate. Provide Ion Chromatography and IR Spectroscopy data to Maxxon before commencing application.

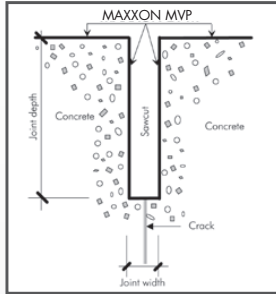
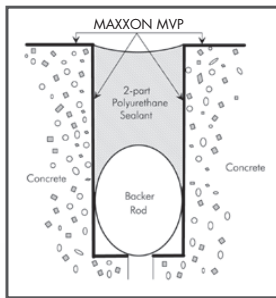
WATER-VAPOR EMISSION TESTING

Maxxon strongly recommends determining the RH content (%) on slabs to be treated using in situ probes, as per ASTM F2170. Alternatively, Anhydrous Calcium Chloride testing may be used as to determine the MVER (moisture vapor emission rate) in lb/24 hrs • 1000 ft² (grams/hr • m²) as per ASTM F1869-98. The testing must be carried out before application of MVP to obtain Maxxon warranty. *Note: MVER fluctuates within slab areas, and can have significant seasonal variations (i.e. 6 lbs. in Nov/Dec and 16 lbs. or more in July/Aug).*

PREPARATION OF SUBSTRATE

All concrete surfaces with minimum 2,500 psi (17.2 MPa) compressive strength, to be treated with MVP must be clean, sound and have an "open"/absorptive surface ("tooth and suction"). *Contact Maxxon before applying MVP to surfaces which have been previously treated with any kind of sealer.*

1. Remove existing floor coverings, coatings, adhesives, curing compounds, efflorescence, dust, grease, laitance, etc. down to bare concrete with steel shot blasting, scarifying or grinding using a diamond cup blade (run with low RPM and ensure that surface is profiled). Standard acid etching is NOT allowed.
2. Steel shot blast or abrasive blast concrete slabs to surface profile ICRI CSP 3-5 (ICRI, Des Plaines, IL, Guideline No. 03732.).
3. Burn off reinforcing fibers and vacuum remains.



4. Remove glaze from quarry tiles.
5. Repair larger cracks with a suitable patching mortar. Seal small or hairline cracks with MVP.
6. Treat sawcut and expansion joints per drawings above.
7. Carefully pre-dampen all the prepared surfaces (excluding quarry tiles) to be treated several times with clean water to SSD (saturated surface dry). Leave no standing water!
8. Install cementitious underlayment, leveling mortars, flash patching, etc. using a primer for non-porous substrates on TOP of MVP.

PACKAGING AND SHELF LIFE

- 2.4 gal kit = 22 lbs (9.2 L = 10 kg), or
- 1.5 gal/14.48 lb (5.8 L/6.58 kg) "A-Component" (resin)
 - 0.9 gal/7.52 lb (3.4 L/3.42 kg) "B-Component" (hardener).
- Shelf life is 2 years in closed, original packaging, stored in a dry, cool place.

Note:

- Post-cracking of the concrete, slab warping or warping relaxation at joints or cracks after installation of the MVP may cause a breach in the coating and void warranty.
- Ensure that slab is thoroughly predampened to avoid formation of pin holes.

SAFETY

Refer to SDS. For commercial use only.

Part A - irritant; sensitizer – contains epoxy resins.

Part B - corrosive; sensitizer – contains amines. Avoid contact with skin and eyes and prolonged inhalation. Wear chemical resistant gloves and safety goggles. After contact with skin, wash immediately with water and soap and rinse thoroughly. In case of eye contact, rinse opened eye for several minutes under running water and immediately seek medical advice. After inhalation supply fresh air and call doctor for safety reasons. Use NIOSH/MSHA approved vapor respirator in poorly ventilated areas.

Spills: Ventilate area. Contain and collect spillage with noncombustible, absorbent materials (i.e. sand, vermiculite, universal binders, sawdust, etc.) and place in container for disposal. Emergency procedures are not required. Dispose of in accordance with current local, state and federal regulations. KEEP OUT OF REACH OF CHILDREN.

LIMITED MATERIAL AND LABOR WARRANTY

SEALING OF EXPANSION JOINTS IN CONCRETE SLABS

- Coat slab surface with Maxxon MVP per specifications
- Coat sidewalls and bottom of cavity with Maxxon MVP
- Allow Maxxon MVP to cure for minimum 12 hrs at 73 °F (23 °C)
- Install backer rod
- Fill cavity with a polyurethane sealant or as specified by the architect/engineer
- Install sub-flooring system

SEALING OF SAW CUT JOINTS IN CONCRETE SLABS

Concrete less than 6 months old:

- Coat slab surface with Maxxon MVP per specifications
- Coat sidewalls and bottom of cavity with Maxxon MVP
- Fill cavity with a polyurethane sealant
- Install sub-flooring system

Concrete more than 6 months old:

- Coat slab surface with Maxxon MVP per specifications
- Coat sidewalls and bottom of cavity with Maxxon MVP
- Indoors: Fill cavity with quartz sand
- Outdoors: Fill cavity with a polyurethane sealant
- Touch-up slab surface
- Install sub-flooring system

This product is sold with the "standard" limited warranty described below. A 10-year material and labor limited warranty is available for emission rates up to 25 lbs/24 hrs • 1000 ft² (5 grams/hr/m²), when product is installed by a trained Maxxon dealer, or the installation is factory inspected and approved. To qualify for the limited warranty, application must be submitted and accepted prior to installation of the product. The terms and conditions of that limited warranty are contained in the application.

INSTALLATION DETAILS

For Maxxon MVP installation details as well as installation details for resinous flooring, VCT, sheet vinyl, carpet and wood over Maxxon MVP, refer to the *Maxxon MVP Installation Guidelines* available by contacting your Maxxon Regional Representative at 800-356-7887.

WARRANTY

See our website for complete warranty information.

Ask for your FREE
Moisture Mitigation
Comparison Guide



MAXXON[®]MVP

Moisture Vapor Protection

For more info: 800-356-7887 • Email: info@maxxon.com
www.MaxxonCorporation.com



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for LEED project certification.

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