another superior product from MAXXON CORPORATION

DAMP PROOF MEMBRANE
WATER/VAPOR/OIL BARRIER COATING

MAXXON® DPM

MAXXON® DPM (Damp Proof Membrane) is a unique 2-component, moisture tolerant, extremely high density, chemically enhanced epoxy-based product which prevents the passage of water vapor and moisture through concrete floors and walls on or below grade. DPM eliminates delamination of adhesives, floor coverings and coatings. DPM also prevents capillary infiltration of oil or other chemicals from the ground and can be used to treat oil-contaminated slabs.

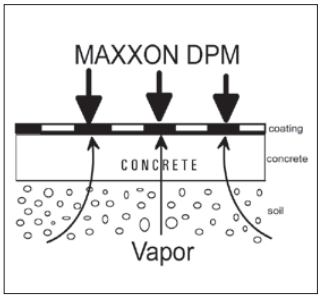
DPM reduces water vapor transmission levels of up to 25 lbs/24 hrs • 1000 ft² to 3 lbs or less for the installation of most floor covering systems including VCT, sheet vinyl, carpets, wood, laminates, epoxy, terrazzo and synthetic.

COMMONLY USED IN

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

TYPICAL APPLICATIONS

- Concrete slabs and cementitious underlayments (other than gypsum) with missing or damaged vapor barriers.
- Barrier for oil plus other chemicals. Used for secondary containment or to prevent infiltration of oil and other chemicals.



SAMPLE WATER VAPOR TRANSMISSION REDUCTION

TEST: ASTM E 96-95

Test carried out by independent laboratory	Test Results: Before Untreated Control Wet Method	Test Results: After Maxxon® DPM One coat at .8 kg/m²	Reduction
Water Vapor Transmission: • lbs/24 hours•1000 ft²	19.24	1.03	95%
• grams/hour•m²	3.91	0.21	
Permeance: • perms	15.54	0.83	95%
• grams/Pa•s•m²	8.89×10^{-07}	4.76×10^{-08}	

DPM APPLICATION RATES & YIELD OF 2.2 GAL (8.5 L) KIT PER ASTM F1869

Moisture Vapor Emission Rate (per ASTM F1869)	Relative Humidity (RH) (per ASTM F2170)	No. of Coats	Application Rate	Approx. Thickness	Yield per 2.2 gal kit
lb/24 h•1000ft² (g/h/m²)			ft²/gal (kg/m²)	mils (mm)	ft² (m²)
up to 20 (up to 4)	<95%	1	95 (0.80)	16 (0.4)	200 (18.7)
up to 25 (up to 5)	95-100%	1	75 (1.0)	21 (0.5)*	160 (15.0)
Stand-alone coating on slabs		1	95 (0.80)	16 (0.4)	200 (18.7)
New concrete (min. 5 days old)		1	95 (0.80)	16 (0.4)	200 (18.7)

Note: In Texas use 25 lb application for all cases. **Note:** All values theoretical. Application thicknesses are approximate. Some variations may apply due to porosity and absorption of substrate.
Walls: Contact Maxxon's Technical Dept.
Test carried out by independent laboratory. * Required thickness to meet ASTM F3010

FEATURES & BENEFITS

- Reduces moisture vapor emission rates of up to 25 lbs to 3 lbs or less
- Underlayment system installed next day
- Covers new concrete (min 5 days old)
- Eliminates "out-gassing" of concrete
- Applied to moist or dry concrete
- High alkalinity barrier (pH 13–14)
- Low VOC content
- Vapor & water barrier
- Barrier against radon and other gases
- Excellent adhesion to steel
- Compatible with most flooring systems
- High chemical resistance
- Does not support mold growth
- Meets USDA/FSIS guidelines
- Easy to install/Minimal downtime
- Full broadcast system
- 12-years of success mitigating moisture
- Meets ASTM F3010 at specified yeild of 21 mils

MAXXON® DPM Damp Proof Membrane

TECHNICAL DATA

Material ..... 2-component epoxy
Color ..... White
Density ..... 14.66 lbs/gal (1.76 kg/L)
VOC Content, mixed ..... 0.39 lbs/gal (47 g/L)
Volume Solids 97.3%
Flash Point: Part A ..... >212 °F (>100 °C)
Part B ..... 170 °F (77 °C)
Mixing Ratio ..... 100:12 (by weight)
Pot Life, approx ..... 60 Minutes at 75 °F (24 °C)
30 Minutes at 85 °F (30 °C)
Open to Foot Traffic ..... after 12 hours at 73 °F (23 °C)
Curing Temperature ..... minimum 46 °F (8 °C)
Full Strength ..... after 7 days at 73 °F (23 °C)
Compressive Strength ..... >11,000 psi (>75.8 MPa)
ASTM D695
Flexural Strength ..... >4,300 psi (>29.6 MPa)
ASTM D790

Adhesion to:
- new concrete (5 days) ..... 110 psi (0.8 MPa)
- moist concrete (28 days) ..... 550 psi (3.8 MPa)
- dry concrete (28 days) ..... 580 psi (4.0 MPa)

ASTM D-4541 (modified) failure in substrate

Temperature Resistance
Continuous:
- dry heat ..... 140 °F (60 °C)
- humid ..... 113 °F (45 °C)

Intermittent:
- high pressure water ..... 185 °F (85 °C)
248 °F briefly (120 °C)
- dry heat ..... 140 °F (60 °C)

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

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 DPM 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).*

For concrete slabs with emission rates from 20 to 25 lb/24 hr • 1000 ft² (4 to 5 grams/hr • m²), it is required that a test application be conducted with DPM to verify acceptable MVER levels and structural soundness of the concrete slab. Consult our technical department before applying DPM to concrete slabs with compressive strength of less than 2,500 psi (17.2 MPa). A test application is recommended on old slabs where a sealer may be present.

TESTING FOR CONTAMINANTS

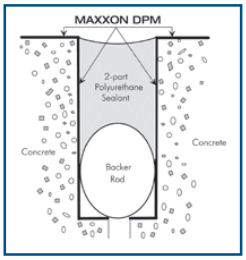
Request owner of facility to test slabs with unknown history (i.e. old slabs, existing floor failures, etc.) for contaminants (i.e. hydrocarbons, other organic compounds, unreacted silicates, ASR, sulfurous compounds; 2,500 psi (17.2 MPa) compressive strength, etc.) to determine suitability for DPM. Provide Ion Chromography and IR Spectroscopy data to Maxxon before commencing application.

PREPARATION OF SUBSTRATE

All concrete surfaces with moisture to be treated with DPM must be clean, sound and have an "open"/absorptive surface ("tooth and suction"). Do not apply DPM to surfaces which have been previously treated with any kind of sealer.

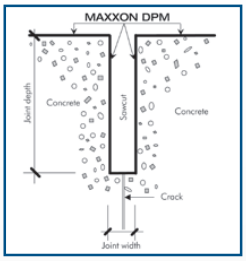
WATER VAPOR TRANSMISSION TREATMENT

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 assure that surface is profiled). Standard acid etching is NOT allowed.
2. Shot blast or abrasive blast concrete slabs to surface profile ICRI CSP 3–5.



SEALING OF EXPANSION JOINTS IN CONCRETE SLABS

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

Concrete more than 6 months old:
- Coat slab surface with Maxxon DPM per specifications
- Coat sidewalls and bottom of cavity with Maxxon DPM
- Indoors: Fill cavity with quartz sand
- Outdoors: Fill cavity with a polyurethane sealant
- Touch-up slab surface
- Install sub-flooring system

3. Burn off reinforcing fibers and vacuum remains.
4. Repair cracks with a suitable patching mortar or DPM broadcasted with sand.
5. Treat saw cut and expansion joints as per Installation Guidelines.
6. Carefully pre-dampen all the prepared surfaces to be treated 2-3 times with clean water to SSD (saturated surface dry). Leave no standing water!
7. Install cementitious underlayments, leveling mortars, flash patching, on top of DPM.

OIL CONTAMINATED SLABS

Selecting of appropriate remediation: Citrus based degreasing agents work well for hydrocarbon contaminated slabs containing low to medium amounts of oil. However, if several degreasing cycles do not show satisfactory results, or the IR analysis reveals high concentrations of hydrocarbons, the solution points to microbial remediation. Cultivated microbes or "bugs" eat oil and other organic substances such as paraffin, grease, creosote, and aromatic hydrocarbons.

1. De-greasing: After steel shot blasting, treat surface with a de-greasing cleaning agent by the detergent scrubbing method as outlined in ICRI Guideline No. 03732. Use as many cleaning cycles as necessary. Check after a minimum of 5 minutes with undiluted de-greasing solution for discoloration. If it discolors, carry out another de-greasing cycle and check. Dispose of the oily wastewater in accordance with federal, state and local regulations.
2. Microbial remediation: Follow microbial products manufacturer's instructions regarding application of microbes or "bugs". We strongly recommend carrying out a test application of DPM for both remediation processes, prior to the actual application of DPM.
3. Clean treated surface with high pressure water blasting of minimum 2,500 psi (17.2 MPa).
4. The surface shall be damp/moist without standing water when applying DPM. If the substrate dries before applying DPM, oil can rise again and prevent DPM from bonding.

PACKAGING AND SHELF LIFE

2.2 gal kit = 33 lbs (8.5 L = 15 kg), or
- 1.8 gal/29.5 lb (6.7 L/13.39 kg) "A-Component" (resin)
- 0.4 gal/3.5 lb (1.8 L/1.61 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 DPM may cause a breach in the coating and void warranty.*
- *Assure that slab is thoroughly predampened to avoid formation of pin holes.*
- *Cannot be mixed with Cab-o-Sil.*
- *Do not apply over gypsum based substrates.*

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.

VOC information: This product is well below the allowable EPA limits as stated in 40 CFR Part 59.

KEEP OUT OF REACH OF CHILDREN.

LIMITED MATERIAL AND LABOR WARRANTY

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 installation details, refer to the Maxxon DPM Installation Guidelines available by contacting your Maxxon Regional Representative at 800-356-7887.

LIMITED PRODUCT WARRANTY

See our website for complete warranty information.

MAXXON® DPM
Damp Proof Membrane

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