

# MAXXON DPM



## FEATURES & BENEFITS

- Reduces moisture vapor emission rates of up to 25 lbs to 3 lbs or less
- One-coat application up to 25 lbs MVER (Moisture Vapor Emission Rate)
- 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 (see Chemical Resistance Guide 5.1.1-2)
- Does not support mold growth
- Meets USDA/FSIS guidelines
- Easy to install
- Minimal downtime
- Full broadcast system

## TYPICAL APPLICATIONS

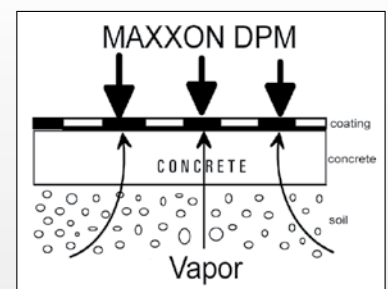
- Concrete slabs and cementitious underlayments (other than gypsum) with missing or damaged vapor barriers.
- Barrier for oil plus other chemicals. Used for secondary containment or to prevent infiltration of oil and other chemicals.

## COMMONLY USED IN

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

MAXXON® DPM (Damp Proof Membrane) is a unique 2-component, moisture tolerant, high density, chemically enhanced epoxy 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 ft<sup>2</sup> to 3 lbs or less for the installation of most floor covering systems including VCT, sheet vinyl, carpets, wood, laminates, epoxy, terrazzo and synthetic.



DPM APPLICATION RATES AS PER ASTM F-2170 (RH-RELATIVE HUMIDITY TESTING)	
<95% RH = 95 ft <sup>2</sup> /gal (.8 kg/m <sup>2</sup> )	• 95-100% RH = 75 ft <sup>2</sup> /gal (1 kg/m <sup>2</sup> )

## SAMPLE WATER VAPOR TRANSMISSION REDUCTION TEST: ASTM E 96-95

Test	Test Results	
	Before Untreated Control Wet Method	After Maxxon® DPM, One coat at .8 kg/m <sup>2</sup>
Water Vapor Transmission: • lbs/24 hours – 1000 ft <sup>2</sup> • grams/hour – m <sup>2</sup>	19.24 3.91	1.03 0.21
Permeance: • perms • grams/Pa•s•m <sup>2</sup>	15.54 8.89x10-07	.83 4.76x10-08

Test carried out by independent laboratory.

## DPM APPLICATION RATES & YIELD OF 2.1 GAL (8.1 L) KIT PER ASTM F1869

Moisture Vapor Emission Rate		No. of Coats	Application Rate	Yield per 2.1 gal kit	Approx. Thickness
lb/24 h • 1000ft <sup>2</sup>	(g/h/m <sup>2</sup> )		ft <sup>2</sup> /gal (kg/m <sup>2</sup> )	ft <sup>2</sup> m <sup>2</sup>	mils (mm)
up to 20	4	1	95 .80	200 18.7	16 .4
up to 25	5	1	75 1.0	160 15.0	21 .5
New concrete (min. 5 days old)		1	100 .80	200 19.5	16 .4
Oil contaminated slabs		1	100 .80	200 19.5	16 .4

Note: In Texas use 25lb application for all cases.

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

## WATER VAPOR EMISSION TESTING

Maxxon® Corporation requires "Anhydrous Calcium Chloride" testing as per ASTM F 1869-98 or ASTM F 2170 on slabs to be treated, to determine the MVER (Moisture Vapor Emission Rate) in lb/24 hr • 1000 ft<sup>2</sup> (grams/hr • m<sup>2</sup>). Alternatively, determine RH content (%) as per ASTM F 2170. This testing must be carried out before application of DPM to obtain Maxxon warranty. For concrete slabs with emission rates from 20 to 25 lb/24 hr • 1000 ft<sup>2</sup> (4 to 5 grams/hr • m<sup>2</sup>), 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 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 for contaminants (i.e. hydrocarbons, other organic compounds, unreacted silicates, ASR, etc.) to determine suitability for DPM. Provide data before commencing application.

## PREPARATIONS OF SUBSTRATE

All concrete surfaces 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 and adhesives down to bare concrete, curing compounds, efflorescence, dust, grease, laitance, etc. with steel shot blasting, abrasive (sand) blasting or grinding using a diamond cup blade. Acid etching is not recommended.
2. Shot blast smooth troweled slabs to surface profile 3–5 per ICRI Guideline No. 03732.
3. Repair defective areas such as honeycombs, cracks or other defects with a suitable repairing mortar.
4. Install cementitious underlayments, leveling mortars, or flash patching on top of DPM.
5. Treat saw cut and expansion joints as per drawing to the right.
6. Carefully pre-dampen all the prepared surfaces to be treated several times with clean water to SSD (saturated surface dry). Leave no standing water!

## OIL CONTAMINATED SLABS

1. 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. 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.
2. Clean treated surface with high pressure water blasting of minimum 2,500 psi.
3. The surface shall be damp/moist without standing water when applying Maxxon DPM. If the substrate dries before applying Maxxon DPM, oil can rise again and prevent Maxxon DPM from bonding.

## PACKAGING AND SHELF LIFE

- 2.1 gal kit = 33 lbs (8.1 L = 15 kg), or
- 29.5 lb (13.39 kg) "A-Component" (resin)
  - 3.5 lb (1.61 kg) "B-Component" (hardener).
- Shelf life is 18 months 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.
- Ensure that slab is thoroughly predampened to avoid formation of pin holes.

## SAFETY

Refer to MSDS. 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.

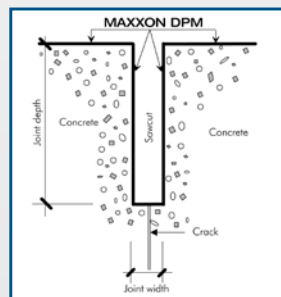
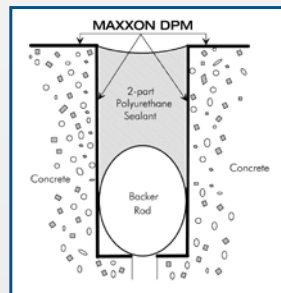
In case of eye contact, rinse opened eye for several minutes under running water and immediately seek medical advice. After inhalation supply fresh air and call doctor for safety reasons. Use NIOSH/MSHA approved vapor respirator in poorly ventilated areas.

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 ft<sup>2</sup> (5 grams/hr/m<sup>2</sup>), 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.



LIMITED PRODUCT WARRANTY: Maxxon Corporation warrants to the owner of the premises at the time of installation that for a period of 10 years after installation its products are free of manufacturing defects. As the sole remedy, we will replace or, at our election, refund the purchase price of, any product which is proven to be defective, provided that the product was properly applied. Our product recommendations are based on Industry Standards and testing procedures. We assume no warranties either written, expressed or implied as to any specific methods of application or use of the product. Maxxon Corporation. MAKES NO WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED. Maxxon Corporation shall not be liable for damages of any sort including without limitation indirect or consequential damages, down time, or delay. This limited warranty is not transferable without Maxxon Corporation prior express written consent.

## TECHNICAL DATA

<b>Material</b> .....	2-component epoxy
<b>Color</b> .....	White
<b>Density</b> .....	15.49 lbs/gal (1.86 kg/L)
<b>VOC Content, mixed</b> .....	0.5 lbs/gal (55 g/L)
<b>Volume Solids</b> .....	97%
<b>Flash Point: Part A</b> .....	>212 °F (>100 °C)
<b>Part B</b> .....	170 °F (77 °C)
<b>Mixing Ratio</b> .....	100:12 (by weight)
<b>Pot Life, approx</b> .....	.60 Minutes at 75 °F (24 °C) 30 Minutes at 85 °F (30 °C)
<b>Open to Foot Traffic</b> .....	after 12 hours at 73 °F (23 °C)
<b>Curing Temperature</b> .....	minimum 46 °F (8 °C)
<b>Full Strength</b> .....	after 7 days
<b>Compressive Strength</b> .....	>11,000 psi (>80 MPa) ASTM D 695
<b>Flexural Strength</b> .....	>4,300 psi (>30 MPa) ASTM D 790
<b>Adhesion to:</b>	
• new concrete (5 days) .....	110 psi (0.8 MPa)
• moist concrete (28 days) .....	550 psi (3.8 MPa)
• dry concrete (5 days) .....	580 psi (4.0 MPa) ASTM D 4541
<b>Temperature Resistance</b>	
<b>Continuous:</b>	
• dry heat .....	140 °F (60 °C)
• humid .....	113 °F (45 °C)
<b>Intermittent</b>	
• high pressure water ...	185 °F (85 °C) 248 °F briefly (120 °C)
• dry heat .....	149–185 °F (65–85 °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.

## SEALING OF EXPANSION 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

## SEALING OF SAW CUT 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

# MAXXON<sup>®</sup>DPM

## Damp Proof Membrane

For more info: 800-356-7887 • Email: [info@maxxon.com](mailto:info@maxxon.com)  
[www.MaxxonCorporation.com](http://www.MaxxonCorporation.com)



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