PE-VRM : MOISTURE VAPOR BARRIER EPOXY

TECHNICAL DATA SHEET

DESCRIPTION

PE-VRM is a clear 2-component,100% solids, low odor, low viscosity epoxy that is specifically formulated as a moisture barrier coating to treat new and existing concrete floors with high moisture and high pH. PE-VRM can be used as a one-coat moisture vapor barrier coating suitable for various types of concrete. The low viscosity formula not only promotes deeper concrete penetration for superior substrate adhesion, but also generates higher propensity for sealing and blocking moisture drive than standard epoxy flooring product.

RECOMMENDED USES

- Manufacturing & Warehouse Floors
- Mechanical Rooms
- Shop Floors
- Pharmaceutical Plants
- Multiple-Unit Housing
- Laboratories
- Animal Care Areas
- Loading Docks
- Retail Stores
- Institution Facilities
- Excellent Moisture Blocker
- Underneath any Coatings Showing Concrete Contamination
- Underneath Various Floorings Such as Carpet, Wood, Rubber, Vinyl, Tile, & Linoleum/PVT

ADVANTAGES

- 100% Solids, Low VOC, Low Odor
- Vapor Control for High Moisture and High pH Slabs
- One-Coating Moisture Vapor Barrier
- Excellent Concrete Adhesion
- Standard and Fast Drying Times
- Low Viscosity for Deeper Concrete Slab Penetration
- Controlled Vapor Pressure up to 25lbs.

TECHNICAL DATA

PACKAGING	3 gallons & 15 gallons (2 Sided Kits)
COLOR	Clear
RECOMMENDED THICKNESS	16 mils 100 ft^2/gal
SHELF LIFE	Parts A and B: 12 months in original unopened factory sealed containers. Protect from freezing. Part C: 6 months in original unopened packaging. Store dry between 50-110ºF (10-44ºC).
MIX RATIO	Mix full units only
POT LIFE	35-40 minutes
VOC (G/L)	<5 g/l
APPLICATION TEMPERATURE	45ºF (7ºC) min. / 86ºF (30ºC) max.
SERVICE TEMPERATURE	-40ºF (-40ºC) min. / 248ºF (120ºC) max.

PROPERTIES
@ 73°F (23°C) AND 50% R.H.

DENSITY	9.0 lb/ga
VISUAL APPEARANCE	High Gloss
CURING DETAILS	FOOT TRAFFIC: N/A LIGHT TRAFFIC: N/A FULL CURE: 7-8 days / 1/4 in (6 mm)

THINNER RECOMMENDED	Xylene
SOFTENING POINT	266ºF (130ºC)
ABRASION RESISTANCE, ASTM D4060 TABER ABRASER CS-17 WHEEL / 1000G (2.2 LBS.) / 1000 CYCLES	30 mg loss
BOND STRENGTH, ASTM D4541	> 1.9 MPA (275 psi) (substrate failure)
COEFFICIENT OF THERMAL EXPANSION ASTM D696	0.89x10-5 in/in/°F (1.6x10-5 mm/mm/°C)
TENSILE STRENGHT D2370	7500 psi
WATER ABSORPTION ASTM C413	<0.1%
IMPACT RESISTANCE	160 in/lb
RESISTANCE TO MOLD GROWTH, ASTM D3273	Rated 10 (highest resistance)
RESISTANCE TO FUNGI GROWTH, ASTM G21	Rated 0 (no growth)
HARDNESS, SHORE D	70-80
FLOW	325 mm (12.80 in)
COEFFICIENT OF FRICTION, ASTM D2047	0.7 smooth
INDENTATION MIL-PRF-24613	0%
THERMAL COMPATIBILITY, ASTM C884	Pass
COMPRESSION ASTM S695	10000 psi
CHEMICAL RESISTANCE	Please contact a PUREPOXY technical sales representative
FLEXURAL STRENGTH ASTM C580	16.2 MPa (2350 psi)

* Times are approximate and will be affected by changing ambient conditions, especially changes in temperature and relative humidity.
* The indicated mileage is calculated for flat surfaces. A porous or imperfect surface will require more material in order to cover the same mileage. *

SURFACE PREPARATION

CHECK FOR MOISTURE Concrete must be dry before application of this floor coating material. Concrete moisture testing must occur. Calcium chloride testing or “In-situ” relative humidity testing is recommended. Readings must be below the defined threshold as specified for each Purepoxy system to be installed directly to the concrete substrate.
CHECK THE TEMPERATURE & HUMIDITY Floor temperature and materials should be between 65°F (18°C) and 90°F (32°C). Humidity must be less than 95%. DO NOT coat unless floor temperature is more than (5ºF) over the dew point.
SURFACE PREPARATION Requires ICRI CSP 3. This product requires proper surface profile to perform as expected. Substrate must be mechanically profiled (ASTM 4259-83), clean, sound, and dry.
APPLICATION EQUIPMENT Tools: 3” Disposable brush, low speed drill (450 rpm) with a 3.5” Jiffler blade, 3/8” nap non-s

MIXING

The temperature of the (A) and (B) portions should be between 70° and 80°F (20°-25°C). Mix them separately to ensure a uniform consistency. For a 3 gallon kit add (Side-B) into (Side-A) in a 3.5 gallon bucket. Mix contents thoroughly until all components are completely incorporated and no streaking is observed. Thinning is not recommended. The portions of each side is accurately measured to ensure optimum product performance. Pouring from one container to the other (boxing) during mixing is very helpful in ensuring complete mixing. Mix for 2 minutes.

APPLICATION

After mixing all contents as instructed, immediately pour out into a ribbon on the surface. Squeegee the material out evenly and check for desired film thickness by using a wet-film thickness gauge. Back-rolling and then cross rolling is critical. Allow to dry minimum of 12 hours before recoat.

HEALTH AND SAFETY

In case of skin contact, wash with water and soap. In case of eye contact, immediately rinse with water for at least 15 minutes. Consult with a doctor. For respiratory problems, transport victim to fresh air. Remove contaminated clothes and clean before reuse.

Components A, B, and C contain toxic ingredients. Prolonged contact of this product with the skin is susceptible to provoke an irritation. Avoid eye contact. Contact with may cause serious burns. Avoid breathing vapors release from this product. This product is a strong sensitizer. Wear safety glasses and chemical resistant gloves. A breathing apparatus filtering organic vapors approved by the NIOSH/MSHA is recommended. Predict suitable ventilation.

Consult the material safety data sheet for further information.

IMPORTANT NOTICE

All statements, recommendations and technical information contained in this document are accurate to the best knowledge of PurEpoxy. The data relates only to the specific material designated herein. It may not be valid if used in combination with any other materials. It is the users’ responsibility to verify suitability of this information for their own particular use, and to test this product before use. PurEpoxy assumes no legal responsibility for use upon these data. PurEpoxy assumes no legal responsibility for any direct, indirect, consequential, economic, or any other damage except to replace the product or refund the purchase price as set out in the purchase agreement.