

PE VRM - Moisture Vapor Barrier Epoxy

DESCRIPTION

PurEpoxy PE-VRM is a clear two-component, 100% solids, low odor, low viscosity epoxy formulated specifically as a moisture barrier coating to treat new and existing concrete floors with high moisture vapor transmission rates. **PE-VRM** is a one-coat moisture vapor barrier coating suitable for various types of concrete. The low viscosity formula promotes deeper concrete penetration for superior substrate adhesion and generates a higher propensity for sealing and blocking moisture drive than standard epoxy flooring products.

PurEpoxy PE-VRM is suitable for concrete substrates indicating relative humidity levels up to 99% when measured in accordance with ASTM F2170.

ADVANTAGES

- 100% solids, low VOC and odor, suitable for interior applications
- Effective MVT control on concrete substrates
- Easy to apply, one coat system
- Low viscosity for deep concrete penetration
- Available in climate adjusted formulas for easy use in a wide range of temperatures

RECOMMENDED USES

- Manufacturing & Warehouse floors
- Mechanical Rooms
- Shop Floors
- Pharmaceutical
- Residential
- Laboratories
- Institutional
- Retail Spaces

CONCRETE MOISTURE

- Note although moisture testing is critical it is not a guarantee against future moisture related problems. This is especially true if there is no vapor barrier or the vapor barrier is not functioning properly and or you suspect there is concrete contamination from oils, chemical spills or excessive salts.
- A functioning vapor barrier is required.
- Perform a water droplet test in multiple places to make sure the slab is porous. (Per ASTM 3191).
- Open the pore structure in any nonporous areas and retest before installing.

MIXING

- Precondition all components for 24 hours to ambient temperatures.
- In clean mixing pail, mix entire unit, A & B. Units are premeasured for correct ratio, do not break down units, product performance will be effected.
- Mechanically mix only, do not mix by hand. Do not mix more material than can be distributed and applied in the working time window. Using a Jiffy/Jiffler, or similar type mixing attachment, slowly mix the components being careful not to introduce excessive air.
- Mix for 3 minutes. Ensure all material is scraped by side wall and bottom of mixing container. Apply material to floor immediately after mixing. Delay in distributing product will result in exothermic heat buildup in container.

SURFACE PREPARATION

- Concrete substrates should be cured for a minimum of 30 days and have a min. compressive strength of 3,000 psi.
- Achieving optimal adhesion requires a clean, mechanically prepared substrate. Surfaces must be clean, sound and properly prepared.
- Substrate must have minimum Concrete Surface Profile (CSP) of 3-4.
- Do not apply to wet or damp substrates.
- Test for concrete moisture before application (see Concrete Moisture.)
- Remove all surface dust just prior to application. Protect prepared surface against contamination.

TECHNICAL DATA

READY MIX	3 US gal (11.35 L) or 15 US gal (56.78 L) Complete A/B kits
COLOR	Color on request
RECOMMENDED THICKNESS	16 mils WFT (100 sq.ft. /ga.)
SHELF LIFE	12 months in original unopened factory sealed container. Protect from freezing. Keep away from extreme cold, heat, or moisture. Keep out of direct sunlight and away from fire hazards.
MIX RATIO, BY VOLUME	Packaged as complete units only. Mix full units only, do not break down
POT LIFE, 16 oz (500g) MASS	~10 - 12 minutes
VOC	<5 g/L
THINNING	Not Recommended
SOLIDS CONTENT BY WEIGHT	100%

PROPERTIES

@ 73°F (23°C) AND 50% RH.

CURE TIME	Foot Traffic: 6 to 8 hours Light Traffic: 12 hours Heavy Traffic: 24 hours
BOND STRENGTH ASTM D4541	>350 PSI (CONCRETE SUBSTRATE FAILURE)
TENSILE STRENGTH ASTM D2370	7,500 PSI (51.7 MPa)
COMPRESSIVE STRENGTH ASTM D695	10,000 PSI (68.9 MPa)
FLEXURAL STRENGTH ASTM C580	2,300 PSI (15.8 MPa)
IMPACT RESISTANCE	160 in/lb
RESISTANCE TO MOLD GROWTH	10 (Highest)
HARDNESS SHORE D	75
THERMAL COMPATIBILITY ASTM C884	PASS

APPLICATION

The recommended application method is the use of non-marking rubber squeegee and roller application.

18-inch rollers are recommended on larger area floors to reduce lap marks. Roller should have solvent-resistant phenolic core, high quality non-shedding fiber cover. Use 1/4-inch to 3/8-inch nap, depending on final finish and thickness desired. Quality brushes or wall-edgers may be used for cutting in margins.

Distribute material evenly with non-marking (gray EPDM type, or similar) rubber flat squeegee. Apply an even film at 16 mils wet film thickness. Roll material in two directions to achieve uniform film.

LIMITATIONS

- Prior to application, measure and confirm the ambient temperature and humidity conditions of air and substrate.
- Stated MVT resistance is assuming otherwise sound concrete condition.
- Measure and confirm temperature of material. Precondition material for 24 hours prior to mixing.
- Minimum/Maximum substrate temperature at application: 45°F (7.2°C) / 85°F (30°C).
- Maximum relative humidity during application and curing : 80%.
- Substrate must be 5°F (3°C) above dew point. Ensure conditions will not change during application and curing.
- Observe concrete moisture limitations stated in Concrete Moisture section.
- On porous, non-concrete substrates, ensure that there will be no moisture penetration on positive side.
- Protect from moisture and condensation for 24 hours after application.
- Do not apply to substrates exhibiting or tested positive for alkali silica reaction (ASR) or have shown indications of near surface alkali reaction (NSAR.)
- Do not use propane or kerosene fueled heaters. Permanent discoloration of coating may occur.
- For professional use only by experienced personnel.
- **KEEP CONTAINER TIGHTLY CLOSED**
- **KEEP OUT OF REACH OF CHILDREN**
- **NOT FOR INTERNAL CONSUMPTION**

Prior to use of any product manufactured by APN Specialty Coatings, its subsidiaries or affiliates, the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at <https://purepoxy.com/> or by calling 920-231-0850.

HEATH & SAFETY

Read and fully understand all of these instructions before beginning mixing and application. Read and understand product SDS and other safety warnings.

Obtain and wear all required personal protection equipment (PPE.)

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.

WARRANTY STATEMENT

APN Specialty Coatings Inc. warrants that products delivered to purchasers are manufactured free from material defects and workmanship flaws in accordance with APN Specialty Coatings Inc. published specifications, provided installation follows APN Specialty Coatings Inc. recommended procedures. APN Specialty Coatings Inc. disclaims liability for any damages arising from improper product usage that deviates from its intended purpose or fails to comply with APN Specialty Coatings Inc. installation standards. APN Specialty Coatings Inc. assumes no liability regarding product installation and processing methods. This technical data information serves as general reference material only. Prior to any installation work, please reach out to your regional PurEpoxy Representative or contact our Technical Service team for professional guidance.

