



## LUXE MVB FC

FAST CURE - MOISTURE VAPOR BARRIER

# TECHNICAL DATA SHEET

## DESCRIPTION

LUXE Moisture Vapor Barrier (MVB) FC (Fast Cure) is a high-performance epoxy primer engineered to provide superior moisture vapor transmission resistance to otherwise sound concrete substrates. It has the added benefit of quick drying in three hours, making it an ideal choice for one-day systems. This high-performance coating system is 3rd party certified to conform to ASTM F3010 as a two-component resin-based membrane-forming moisture mitigation system applied to high-moisture concrete substrates. The LUXE MVB FC system creates an effective barrier against moisture to promote optimal adhesion and long-lasting protection of resinous flooring systems and other types of floor coverings.

## TYPICAL APPLICATIONS

- Concrete base coat for concrete moisture control
- Indoor applications; no odor
- Aircraft hangar floors
- Maintenance facilities
- Industrial shop floors
- Car washes or wash bays

## ADVANTAGES

- Fast curing, dry to recoat in 3 hours
- ASTM E96 tested & certified, Perm rating <0.1
- Conforms to ASTM F3010 for resinous and other resilient flooring
- Cures at lower temperatures
- Zero solvent content
- Easy application with typical tools

## PROPERTIES

PACKAGING	3 US gal (11.35L) Mix Complete Units Only
RECOMMENDED THICKNESS	As Primer 16 mils (100 sq. ft./Gallon)
SHELF LIFE	12 months in original unopened factory sealed containers. Keep away from cold, heat or moisture. Keep out of direct sunlight and away from fire hazards.
MIX RATIO, BY VOLUME	Packaged in complete units, do not break down. Mix complete units only
POT LIFE 1 kg MASS	10 minutes @ 70°F (21°C)
NORMAL WORKING TIME	15 - 20 minutes @ 70°F (21°C)

	PART A	PART B	MIXED
<b>SOLIDS CONTENT, x VOLUME</b>	100%	100%	100%
<b>DENSITY (kg/L)</b>	1.15	0.97	1.09
<b>RECOMMENDED THINNER</b>	None, do not thin product		
<b>DRYING TIMES</b>			
<b>TACK-FREE</b>		~2 - 3 hours	
<b>TO RECOAT</b>		Within 12 hours <sup>1</sup>	
<b>FOOT TRAFFIC</b>		~3 - 4 hours	
<b>HEAVY WHEELED TRAFFIC</b>		~24 hours	
<b>FULL CURE</b>		~4 - 7 days	
<b>ADHESION TO PREPARED CONCRETE ASTM D4541</b>	>350 psi (exceeds tensile strength of concrete)		
<b>WATER VAPOR PERMEABILITY ASTM E96</b>		<0.10 perm	
<b>ASTM F3010 STANDARD PRACTICE</b>		Compliant	
<b>HARDNESS, SHORE D, ASTM D2240</b>		70	
<b>TENSILE ELONGATION AT BREAK ASTM D638</b>		1.15%	

<sup>1</sup> If recoat time window is exceeded, surface must be mechanically prepared before subsequent coats.

## THINNING

Thinning is not normally required for this product and not recommended.

## SURFACE PREPARATION

Applications direct to concrete, substrates should be cured for a minimum of 30 days and have a minimum compressive strength of 3,000 psi.

Surfaces must be clean, sound and properly prepared. The preferred preparation method is recirculating abrasive shot-blasting. Diamond abrasive grinding is not recommended unless a prepared surface texture of CSP-3 can be achieved (see below.) Remove all surface contamination before preparation. All soil, grease, oil or wax, or curing-agents must be removed.

Any preparation method should produce a uniform surface profile of CSP-3 (ICRI Guide 03732,) or greater. Acid etching of concrete is unacceptable and will void Manufacturer's warranty.

Do not apply to visibly damp or wet substrates. Test for concrete moisture before application (see Concrete Moisture.)

Thoroughly vacuum prepared surface to remove all dust just prior to application. Protect prepared surface against contamination prior to product application.

## CONCRETE MOISTURE

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LUXE MVB-FC is designed and recommended for otherwise sound concrete substrates indicating moderate to high moisture vapor transmission rates. Test for concrete moisture in accordance with ASTM F2170-19 (Wagner® RapidRH™ or similar.) Alternately, test for excessive concrete moisture in accordance with ASTM F2659. Moisture content of concrete substrate must be  $\leq 4\%$  by mass as measured with an impedance type (Tramex® CME/CMExpert) concrete moisture meter on prepared surface. Do not utilize resistance type moisture meters (Delmorst & similar) or calcium chloride tests. These are inaccurate and inconclusive tests.

Excessive moisture on the surface may be an indication of a concrete defect or extraordinary water intrusion under the slab.

## MIXING

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Precondition all components for 24 hours to ambient temperatures. In clean mixing pail, mix entire packaged unit, A+B. LUXE MVB-FC is factory packaged in the correct amount and ratio. ***Do not attempt to break down mixed units, product performance will be adversely affected.*** Mechanically mix only, do not mix by hand. Do not mix more material than can be 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.

## APPLICATION

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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 covers. 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 even film at desired thickness. Roll material in two directions to achieve uniform film.

- Avoid puddles of material
- Do not apply above recommended thickness

## CLEAN UP

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Clean tools with appropriate solvent before curing. Cured material is very difficult to remove. Clean any spills and splashes before curing.

## LIMITATIONS

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- LUXE Moisture Vapor Barrier (MVB) FC has been tested in accordance with ASTM E96 to ensure compliance with ASTM F3010 *Standard Practice for Two-Component Resin Based Membrane-Forming Moisture Mitigation Systems for Use Under Resilient Floor Coverings*. Compliance in field applications depends on proper mixing, application and applied thickness according the instructions herein.
- Application below the recommended thickness may reduce the overall effectiveness of the system.
- Uneven application thickness may cause localized reduction in moisture transmission.
- Measure and confirm temperature of material. Precondition material for 24 hours prior to mixing.
- Minimum/Maximum substrate temperature at application: 50°F (10°C) / 86°F (30°C)
- Maximum relative humidity during application and curing : 80%
- Substrate must be 5.5°F (3°C) above dew point. Ensure conditions will not change during application and curing.

## LIMITATIONS, cont.

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- Prior to application, measure and confirm the ambient temperature and humidity conditions of air and substrate
- Measure and confirm temperature of material. Precondition material for 24 hours prior to mixing
- Minimum/Maximum substrate temperature at application: 65°F (18°C) / 85°F (30°C)
- Maximum relative humidity during application and curing : 80% High humidity will accelerate cure time
- Extremely low relative humidity (<30%) will delay curing times
- 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)
- Do not use propane or kerosene fueled heaters. Permanent discoloration of coating may occur
- For professional use only by experienced personnel

## HEALTH & SAFETY

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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.

- KEEP CONTAINER TIGHTLY CLOSED • KEEP OUT OF REACH OF CHILDREN
- NOT FOR INTERNAL CONSUMPTION

Prior to each use of any product manufactured by A.P Nonweiler/PurEpoxy, 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/documentations/> or by calling A.P Nonweiler. Nothing contained in any A.P Nonweiler/PureEpoxy literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the A.P. Nonweiler/PurEpoxy product.

## WARRANTY STATEMENT

AP Nonweiler/PurEpoxy ("we," "us," or "our") warrants this product for one year from the date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. No warranty shall be in effect until our Terms and Conditions of Sales are met in full. NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL WE OR OUR AFFILIATES BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES OF ANY NATURE, REGARDLESS OF THE FORM OF ACTION OR THEORY OF LAW, INCLUDING, WITHOUT LIMITATION, BREACH OF ANY OBLIGATION OR WARRANTY IMPOSED ON US HEREUNDER OR IN CONNECTION HERewith. AP Nonweiler/PurEpoxy SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. AP Nonweiler/PurEpoxy SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.

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