



# SUPERCAP®

The Next Generation Slab®

## 1. PRODUCT NAME

LATICRETE® SUPERCAP™ Moisture Vapor Control

## 2. MANUFACTURER

LATICRETE SUPERCAP, LLC

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## 3. PRODUCT DESCRIPTION

LATICRETE SUPERCAP Moisture Vapor Control is a single-coat, 100% solids, liquid applied 2-part epoxy coating specifically designed for controlling the moisture vapor emission rate from new or existing concrete slabs prior to installing LATICRETE SUPERCAP underlayment. LATICRETE SUPERCAP Moisture Vapor Control exceeds ASTM F3010 standard with a perm rating of 0.052 grains/h/ft<sup>2</sup>/in. Hg (3 ng/h • m<sup>2</sup> • Pa) at only 12 mil thickness.

### Uses

- Ensures protection of moisture/pH sensitive floor coverings
- Reduces MVER from ≤25 to below 3 lbs/1000 ft<sup>2</sup>/24hr (170 µg/(s • m))
- Use on concrete up to 100% RH / 14 pH
- Ideal for slab-on-grade construction and elevated slabs
- Allows for the installation of vinyl, rubber, VCT, carpet, wood, ceramic tile, stone and other moisture sensitive floor coverings and floor adhesives

### Advantages

- Exceeds ASTM F3010 standard
- Component of the LATICRETE SUPERCAP system warranty
- Can be applied over new concrete in as little as 5 days
- Fast cure – ability to apply finish floor goods or LATICRETE SUPERCAP underlayments in as soon as 12 hours
- VOC content (mixed) <10g/L – UL GREENGAURD Gold certified
- Low odor
- Easy to use
- Compatible with LATICRETE SUPERCAP underlayments as well as non-water based adhesives for hardwood, vinyl, carpet and tile

### Suitable Substrates

Concrete slabs (Interior use only)

### Packaging

Full Unit Kit\*: 6.5 Gal (24.6 L)

- Part A – 2.2 Gal (8.3 L) packaged in a steel pail
- Part B – 4.3 Gal (16.3 L) packaged in a steel pail

Mini Unit Kit\*: 2.5 Gal (9.4 L)

- Part A – 0.8 Gal (2.8 L) packaged in a steel pail
- Part B – 1.7 Gal (6.6 L) packaged in a steel pail

\* LATICRETE® SUPERCAP™ MOISTURE VAPOR CONTROL is a kit of two pails. Individual pail (Part A or Part B) cannot be purchased separately, and cannot be returned separately.

### Coverage

LATICRETE SUPERCAP Moisture Vapor Control is to be applied at minimum thickness of 12 mils. LATICRETE SUPERCAP Moisture Vapor Control when applied at a minimum 12 mils thickness will control moisture vapor emission rate up to 25 lbs/1,000 ft<sup>2</sup>/24 hr (1415 µg/(s • m))<sup>A</sup> per ASTM F1869/maximum<sup>A</sup> RH conditions per ASTM F2170. In order to help insure coverage, periodically check mil thickness using a LATICRETE SUPERCAP Wet Film Thickness Gauge.

Vapor Permeance <sup>µ</sup>	MVER/ RH	mil thickness	ft <sup>2</sup> /gal (m <sup>2</sup> /L)
0.052 grains/h/ft <sup>2</sup> /in Hg (3 ng/h • m <sup>2</sup> • Pa)	≤25 lbs (1415 µg) / 100%	12	133 (3.2)
Each full unit will yield approximately 865 ft <sup>2</sup> (80.8 m <sup>2</sup> )**. Each mini unit will yield approximately 319 ft <sup>2</sup> (29.8 m <sup>2</sup> )**.			

\*\*Coverage is approximate and will vary depending on CSP (concrete surface profile), mil thickness, absorption, and other field conditions.

<sup>A</sup>No visible water or condensation on the surface.

<sup>µ</sup>Tested according to ASTM E96 Wet Method.

### Shelf Life

Factory sealed containers of this product are guaranteed to be of first quality for two (2) years if stored at temperatures >32°F (0°C) and <110°F (43°C).

### Limitations

- Interior use only
- LATICRETE SUPERCAP Moisture Vapor Control is not a replacement for waterproofing membranes and is not intended to stop liquid water intrusion. When a waterproofing membrane is required contact LATICRETE SUPERCAP Technical Sales Representative.
- Not for use over any other substrates besides concrete slabs cured for a minimum of 5 days at 70°F (21°C)
- All existing expansion joints, cold joints and control joints must be brought up through the LATICRETE SUPERCAP Moisture Vapor Control and the finish. Failure to honor movement joints will result in cracking and/or loss of bond.
- LATICRETE SUPERCAP is not responsible for moisture emission from expansion and isolation joints, existing cracks, or new cracks that may develop in the concrete slab after the system has been installed. See section 5 of this document for information on how to treat these areas.

### Cautions

- Consult SDS for more safety information
- LATICRETE SUPERCAP Moisture Vapor Control Part A is harmful if swallowed. Harmful if inhaled. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Suspected of damaging fertility or the unborn child. Toxic to aquatic life.
- LATICRETE SUPERCAP Moisture Vapor Control Part B causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects.



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- Check [www.laticretesupercap.com](http://www.laticretesupercap.com) for any technical bulletins or updated information about the product and its application.
- Contact your local LATICRETE SUPERCAP Technical Sales Representative with any questions.
- Once material is fully mixed the reaction may generate high heat if left in mixing container for an extend period of time.
- Protect finished work from traffic until fully cured.
- Do not take internally
- Keep out of reach of children

## 4. TECHNICAL DATA

Specifications are subject to change without notification. Technical data shown in LATICRETE® SUPERCAP® product data sheets and technical data sheets are typical but reflect laboratory test procedures conducted in laboratory conditions. Actual field performance and test results will depend on installation methods and site conditions. Field test results will vary due to variability of job site factors.

Test	Method	Results
Vapor Permeance at 12 mil thickness	ASTM E96	0.052 grains/h/ft <sup>2</sup> /in. Hg (3 ng/h • m <sup>2</sup> • Pa) CTL Project 281426
Tensile Strength (7 days)	ASTM C1583	> 410 psi (> 2.8 MPa) Concrete Failure
Pull off Adhesion Strength	ASTM C7234	> 480 psi (> 3.3 MPa)
Alkalinity Resistance	ASTM D1308	Pass (resist up to 14 pH)

## 5. INSTALLATION

### Surface Preparation

Concrete slabs must be clean, structurally sound, absorptive, and have an ICRI concrete surface profile (CSP) of 3 - 5. All dirt, oil, paint, laitance, efflorescence, sealers, curing compounds and any other bond breaking contaminants must be removed down to the full depth of contamination by shot blasting or other mechanical means then swept and vacuumed clean. Use of chemicals to remove contaminants is prohibited. Use of sweeping compound is not recommended as they may contain oil which will act as a bond breaker. Do not use over gypsum or asphalt based products. Water drop test (Refer to TDS 230S for water drop test instruction) is recommended prior to application of LATICRETE SUPERCAP Moisture Vapor Control. If the water drop test yields a non-suction results where the water beads up and doesn't absorb, please contact LATICRETE SUPERCAP Technical Sales Representative. Per ASTM F3010, concrete slab to receive LATICRETE SUPERCAP™ Moisture Vapor Control must have a tensile pull-off strength of 200 psi (1.4 MPa) or greater when tested in accordance with ASTM C1583.

Surface temperature must be 50–90°F (10–32°C) during application and for 24 hours after installation. In all cases, the surface temperature of the prepared concrete slab must be warm enough to avoid condensation on the surface of the concrete.

### Joins, Cracks, Surface Depressions and Other Irregularities

All joints and cracks should be evaluated and repaired if necessary prior to installation of Moisture Vapor Control. A good crack repair technique depends on knowing the causes and selecting appropriate repair procedures that take these causes into account. Repairing a crack without addressing the cause may only be a temporary fix. Successful long-term repair procedures must address the causes of the cracks as well as the cracks themselves. Refer to ACI 224.1R-07 for guidance on evaluation and repair of cracks in concrete. LATICRETE SUPERCAP product application over moving cracks and joints is not recommended.

1. Moving joints (e.g. expansion joints, isolation joints, etc.) and dynamic cracks must be honored up through the LATICRETE SUPERCAP Moisture Vapor Control. LATICRETE SUPERCAP is not responsible for vapor emission through untreated joints or for areas where cracks may develop later.

2. All non-moving joints and dormant cracks (e.g. saw cuts, surface cracks, grooves, control joints, etc.) must be cleaned out and free of all loose debris. Non-structural cracks up to 1/8" (3 mm) in width can be filled with LATICRETE SUPERCAP Moisture Vapor Control epoxy during main application. Inspect these areas to ensure cracks are completely filled with no voids.

3. Non-moving joints, dormant cracks greater than 1/8" (3 mm) wide, can be patched with mixture of 1 part LATICRETE SUPERCAP Moisture Vapor Control and 3 parts approved sand (same sand used with LATICRETE SUPERCAP SC500, LATICRETE SUPERCAP SC500 Plus and LATICRETE SUPERCAP SC500 LW). In a suitable container, such as an empty LATICRETE SUPERCAP Moisture Vapor Control pail, pour 1 part LATICRETE SUPERCAP Moisture Vapor Control preblended to 3 parts LATICRETE SUPERCAP qualified sand, using a 300 rpm drill with jiffy paddle, mix together for 2-3 minutes until the LATICRETE SUPERCAP Moisture Vapor Control and qualified sand mixture is consistent. Slowly pour the mixture into the crack, using the flat side of a trowel force the mortar into the crack. Surface crazing and hairline cracks do not need filling. Construction joints, expansion joints and large moving cracks that have lost aggregate lock (one side of crack is higher than the other) have structural implications and cannot be repaired using this method.

### Moisture Evaluation

Moisture testing must be conducted in accordance with finish floor goods and adhesive manufacturers' requirements prior to LATICRETE SUPERCAP Moisture Vapor Control application. When evaluating moisture conditions the HVAC system or a properly conditioned temporary enclosure must be operational and in place for the minimum specified time period recommended in the moisture test standard. The concrete floor slabs and the ambient air space above the floor must be at service temperature and relative humidity for at least 48 hours before taking moisture measurements in the concrete slab. These conditions must remain throughout the test period to ensure accurate results.



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## Mixing

Before mixing, store resins at room temperature 65-85°F (18-30°C) for 24 hours to ensure ease of mixing. Mix Components A and B at a ratio of 1:2 by volume (components are packaged into the pails to the specified ratio). Pour the A component into the larger B component steel pail. Verify that all of the Part A liquid is drained from pail. Mix with a slow speed drill (<300 RPM) with a jiffy blade for 3 minutes, assuring mixture is fully uniform and that all ribbons of contrasting shade are completely eliminated. Pour the fully mixed material onto the substrate immediately after mixing.

**NOTE:** Do not mix LATICRETE<sup>®</sup> SUPERCAP<sup>™</sup> Moisture Vapor Control in a plastic bucket as mix generates excessive heat!

## Application

Pour ribbons of LATICRETE SUPERCAP Moisture Vapor Control onto the prepared concrete and spread using appropriate round or square notch squeegee that is designed to apply the desired mil thickness in a single coat. Apply an even coat making sure to cover all areas thoroughly. Immediately following, while epoxy is still wet, use a high quality 3/8" (9mm) nap non-shedding paint roller to back-roll at 90° from the squeegee direction to help ensure full coverage and uniform thickness. Replace worn squeegee blades and paint rollers when necessary to help ensure proper application. Use a paint brush to apply epoxy around penetrations, columns, and any other obstructions. Periodically check mil thickness using a LATICRETE SUPERCAP Wet Film Thickness Gauge. Allow to cure for 12 hours at 50-90°F (10-32°C) prior to installation of underlayment or finish flooring. Always consult flooring and adhesive manufacturer's installation instructions, restrictions and confirm compatibility with LATICRETE SUPERCAP Moisture Vapor Control. Always test performance and compatibility of floor systems prior to application.

## Flooring and Self-Leveling Underlayments Installation

In all cases the LATICRETE SUPERCAP Moisture Vapor Control surface must be protected from traffic, dust, debris, rain, and any other contaminants. LATICRETE SUPERCAP self-leveling underlayments shall be installed over LATICRETE SUPERCAP Moisture Vapor Control as soon as the epoxy is slightly tacky to the touch with no transfer; typically 12 hours after application depending on ambient and substrate conditions. The maximum time to install LATICRETE SUPERCAP self-leveling underlayments over LATICRETE SUPERCAP Moisture Vapor Control is 24 hours. If LATICRETE SUPERCAP Moisture Vapor Control is left open longer than 24 hours or the surface becomes contaminated, contact LATICRETE SUPERCAP Technical Sales Representative. LATICRETE SUPERCAP self-leveling underlayments require the use of LATICRETE SUPERCAP Primer Plus. Refer to TDS 230S for detailed primer installation instructions. If finish floor goods are to be installed directly on top of LATICRETE SUPERCAP Moisture Vapor Control, then the epoxy surface must be allowed to cure until non-tacky to the touch, after a minimum of 24 hours. Always refer to finished floor manufacturer's recommendations regarding installation

instructions, restrictions, moisture conditions and compatibility. Always test performance suitability and compatibility of finished floor systems prior to their application. Sample surfaces should be installed as a field test so as to be representative of entire surface and tested for intended use.

## 6. AVAILABILITY

### Availability

LATICRETE SUPERCAP materials are available worldwide.

### For information, call:

Toll Free: +1.866.704.2247

For on-line information, visit LATICRETE SUPERCAP at [www.laticretesupercap.com](http://www.laticretesupercap.com).

## 7. WARRANTY

See 10. FILING SYSTEM

DS 230.03SP: LATICRETE SUPERCAP 3 Year Product Warranty

DS 230.10SP: LATICRETE SUPERCAP 10 Year System Warranty

DS 230.25S: LATICRETE SUPERCAP 25 Year System Warranty

## 8. MAINTENANCE

LATICRETE, LATICRETE SUPERCAP and LATAPOXY<sup>®</sup> installation materials require no maintenance but installation performance and durability may depend on properly maintaining products supplied by other manufacturers.

## 9. TECHNICAL SERVICES

### Technical Assistance

Information is available by calling the LATICRETE SUPERCAP Technical Service Hotline:

Toll Free: +1.866.704.2247 Fax: +1.203.393.1948

E-mail: [techsupport@laticretesupercap.com](mailto:techsupport@laticretesupercap.com)

## 10. FILING SYSTEM

Additional product information is available on our website at [www.laticretesupercap.com](http://www.laticretesupercap.com).

The following is a list of related documents:

DS 230.03P: LATICRETE SUPERCAP 3 Year Product Warranty

DS 230.10P: LATICRETE SUPERCAP 10 Year System Warranty

DS 230.25S: LATICRETE SUPERCAP 25 Year System Warranty

DS 058.0: LATICRETE SUPERCAP Primer Plus

DS 057.1: LATICRETE SUPERCAP SC500

TDS 230S: LATICRETE SUPERCAP Substrate Preparation and Primer Guide

LSCDS 0572: LATICRETE SUPERCAP SC500 Plus

LSCDS 0573: LATICRETE SUPERCAP SC500 LW

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