CreteSeal®
MAX Moisture Control System

Creteseal® MAX System™ is a two-component moisture mitigation system formulated to stop moisture vapor emission levels of up to 25 lbs/1,000 SF over 24 hours (MVER).

Advantages

- Single Coat, Fast Cure Time
- Easy to Apply
- Shotblast / Grind to Prepare Substrate for Application
- ASTM F3010 Certified Vapor Barrier
- Can be Applied Over Fresh/10-Day Old Concrete
- Value-Engineered System: Simply Skim Cementitious Topping at a Featheredge over Flat/Level Slabs
- Odor-Free, Zero-VOC

Description and Use

Creteseal® MAX System™ is a two-component moisture mitigation system formulated to stop moisture vapor emission levels of up to 25 lbs/1,000 SF over 24 hours (MVER). *Creteseal® MAX System*™ can be applied to concrete slabs with relative humidity levels up to 100% (adhesion to damp concrete). The low viscosity polymer penetrates and mechanically bonds to properly prepared concrete. *Creteseal® MAX System*™ is alkali resistant and will not support biological growth (bacteria, fungus, mold or algae).

Creteseal® MAX is applied in a single coating at 16 mils to completely encapsulate and control moisture vapor in the substrate. Coverage rates may vary depending on the porosity and condition of the concrete; typical coverage rates will be 100 SF/GL. Consult flooring manufacturer requirements and project specifications prior to placing the flooring system; typically a concrete cementitious skim topping or self leveling topping will be required over the *CreteSeal® MAX System™* prior to placement of the specified flooring system.

CreteSeal® MAX System™ exceeds the performance requirements in ASTM F3010 Standard Practice for Two-Component Resin Based Membrane-Forming Moisture Mitigation Systems for Use Under Resilient Floor Coverings when applied at a thickness of 16 mils to a properly prepared substrate.

The Unmatched OBEX 15-Year Warranty

Creteseal® MAX System™ carries a 15-Year Warranty that includes all labor and materials necessary to replace or repair flooring that fails due to negative side moisture vapor emission and alkalinity migration from the concrete slab.

OBEX maintains a network of OBEX Certified Installers (OCI) throughout the United States trained in proper installation procedures, ensuring every *Creteseal® MAX System™* installation is a success and the resilient flooring system is covered by the OBEX 15-Year Warranty. For more information on the OBEX OCI process, please contact OBEX Technical Services or refer to the OBEX *Creteseal® MAX System™* Certified Installer Guide.

Creteseal® MAX System™ is compatible with the following flooring materials: Wood, VCT, LVT, Linoleum, Ceramic Tile, Carpet, Rubber and Sheet Flooring, Epoxy/Polymer/Urethane Coatings, Terrazzo (call for application instructions), and most flooring mortars and mastics.

Moisture testing in accordance with ASTM F1869 / F2170 / F710 can inform decision-making on a project. As *Creteseal® MAX System™* is rated up to 100% Relative Humidity / 25 lbs. MVER, OBEX does not require moisture testing prior to installation of *Creteseal® MAX System™*. Following *Creteseal® MAX System™* installation, prior to the installation of the flooring system, OBEX does not recommend moisture testing.

Concrete Preparation

Mechanical preparation is the preferred method of preparing concrete for coating applications. Shot-blasting or diamond grinding are recommended to achieve ICRI-Concrete Surface Profile (CSP) of 3-4. If strict ASTM F3010 compliance is desired or required on a project, the slab should be shot blasted to a CSP of 3, and hand ground in areas where shot blasting cannot reach. Perform a water droplet test to verify the concrete substrate is porous and no contaminants are present prior to installation.

Voids, cracks, and imperfections will be seen in finished coating if the concrete is not patched correctly. All cracks/joints/voids must be cleaned out and filled with an OBEX Co. approved filler in accordance with ASTM F710 standard.

OBEX Perfect Patch® is integral to the *Creteseal® MAX System™* for treatment of joints/cracks/voids. After *Perfect Patch®* has cured, diamond grind patch if necessary.

Product Data

Packaging:	5.5 GL Bulk Kit: Part A: 3.67 GL / Part B: 1.83 gal
Color:	Clear
Coverage:	100 SF per mixed gal
Application Thickness:	16 mils wet film
Application Temp:	50-100° F
Pot life:	25 minutes
Cure time:	4-5 hours
Topcoat Installation:	4-24 hours
Recoat Window:	24 hours
LEED Projects:	Meets USGBC LEED Criteria IEQ4

Any substantial substrate patching performed prior to the installation of the *Creteseal® MAX System™* MUST be performed with an exterior-grade cementitious or hydraulic cement product. Interior-grade cementitious or gypsum-based products are not permitted.

Before the Creteseal® MAX System™ is applied, the concrete slab must be:

- Clean: contaminants, grease, foreign matter and construction debris removed.

- Profiled: ICRI Concrete Surface Profile (CSP) of 3-4
- Sound: Cracks and spalled areas repaired and ground

Please refer to ***OBEX Perfect Patch***® TDS for treatment of cracks/joints/voids prior to the installation of ***Creteseal***® ***MAX System***™.

Application Instructions

Creteseal® ***MAX*** is packaged in 5.5 GL bulk kits, and pre-measured in proper mixing ratios for easy installation. Mix ***Creteseal***® ***MAX*** with a drill and mixing paddle, rotating the mixing paddle in a circular pattern around the pail, at a low speed (not to exceed 300 rpm) to avoid air entrapment.

1. Premix Part A: Scrape the sides of the A pail with a straight edge (painter's tool or squeegee head) all the way around the pail twice to ensure all A material thoroughly mixes.
2. Pour Part B into Part A, allow Part B container drain for approximately 30 seconds to ensure ratios are maintained.
3. Mix the combined material for 3 minutes, rotating the drill in a circular pattern, taking care not to entrain air into the material. The material is now ready to apply.
4. Apply to concrete surface by pouring out material in a ribbon. Using a straight edge tool, scrape the sides of the pail all the way around to dispense material onto the substrate. Do not flip pail over and leave on the substrate—doing so may result in inconsistent curing rates.
5. Using a squeegee, either straight, flexible (i.e. magic trowel), or 3/32 notch edge, pull coating evenly over substrate, filling in all cracks and control joints with ***Creteseal***® ***MAX***. Apply appropriate pressure to achieve proper coating thickness based on the substrate surface condition.
6. While wearing spiked shoes, use a 1/4" non-shedding epoxy roller to roll coating forward and backward perpendicular to squeegee direction. Do not allow puddles in low spots, cracks and divots. Use brush to remove or spread excess material to avoid pooling.
7. Back-roll perpendicular to the prior direction, parallel to the squeegee direction. Back-roll evenly while completely wetting out the concrete and uniformly covering the surface to flatten all ridges.
8. Check mil thickness with a wet film gauge frequently to ensure uniform thickness is achieved.
9. Replace rollers after 45 minutes of back-rolling to maintain coating uniformity.
10. Allow to cure a minimum of 4 hours prior to installation of any primer and cement topping.
11. For resilient flooring applications, after the ***Creteseal***® ***MAX System***™ is installed, the primer and cementitious topcoat must be installed within 24 hours. Failure to install the primer and cementitious topcoat within 24 hours may void the 15-Year Warranty.
12. Follow all manufacturer instructions and requirements when installing the primer and cementitious topcoat for a successful installation.

CreteSeal® MAX Performance Data

	Reference	Value
Adhesion	ASTM D7234	>480 psi (Concrete failure)
Compressive Strength	ASTM D695	12,000 psi
Tensile Strength	ASTM D638	5,600 psi
Tensile Elongation	ASTM D638	2.7%
Permeability (Perm)	ASTM E96 / ASTM F3010	No greater than .10
Microbial Resistance	ASTM G21	Passes Rating 1
Alkali Resistance	ASTM D1308)	Resistant

Optimal pH Guidelines

Proper pH management is crucial for successful coating adhesion and long-term durability. Understanding how moisture and contaminants affect pH levels helps ensure the right surface preparation before applying a coating.

- Ideal pH for coating application: Between 7-10
- Above 10 pH: Typically indicates high alkalinity, which suggests moisture and minerals are being brought up with the moisture.
- Below 7 pH: May indicate acidic contamination in the concrete, which could require neutralization before coating application.

The ***Creteseal® MAX System*** is designed to handle very high moisture and pH levels, as they often go hand in hand. MAX can accommodate up to a 14 pH, provided the concrete is properly prepped.

When pH reaches 13-14, it's important to test whether contamination is causing the extreme pH levels or if it's purely moisture-related. Additional testing should determine if grinding or shot blasting helps reduce pH. The goal is to avoid potassium silicates, sodium silicates, and colloidal silicas, as these can act as bond breakers. Further shot blasting or grinding may be needed to reduce their presence.

Sample Installation

All slab surfaces are not the same. It is recommended that a sample area be done before the start of the project if ASTM F3010 compliance is required, or to verify bond to the substrate. The test should be done on-site, using the proposed method by the assigned applicator to ensure proper adhesion.

- Install a minimum 100 SF mockup area using the same methods and equipment that will be used for the entire installation.
- Test the tensile bond strength of the installed ***Creteseal® MAX*** in accordance with ASTM D7234.
- The results must be equal to or greater than 200 psi with the failure mode in the concrete before proceeding with the installation of the entire area.

Environmental Information

The ***Creteseal® MAX System™*** is formulated to be environmentally friendly, contains no hydrocarbon solvents, and VOC levels are 0 g/L as individually packaged and as applied. ***Creteseal® MAX System™*** has no significant odor during installation. The product can contribute to LEED certification for buildings, please refer to our Technical Bulletins or contact OBEX Co. for further details.

Safety and Handling

Some individuals may be allergic to this product. Use of safety goggles, protective gloves and clothing when using this product is recommended. Perform work in a well-ventilated area. Do not allow product to freeze.

For more information about ***Creteseal® MAX System™*** please contact OBEX® by calling (844) 265-3535 or by email at info@obexco.com.

For Hazardous Materials [or Dangerous Goods] Incident Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night 1-800-424-9300 / +1 703-527-3887.

Please see *Creteseal® MAX System™* SDS for a complete list of health and safety warnings.

OBEX® Products are proudly

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MAKING CONCRETE BETTER.®

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