GHOSTSHIELD®

440 FC

PRODUCT DATA

Technical Data Sheet

Sections

09 09 96 00
High Performance Coatings

VAPOR-TEK™ 440 FC

MOISTURE VAPOR BARRIER (MVB) COATING

Description

This 100% solids, two-component epoxy coating was engineered to control moisture vapor emission rates in concrete up to 20 lbs / 24 hr / 1,000 sq. ft. It cures twice as fast as traditional MVB floor coatings, significantly reducing downtime and allowing for same-day top coating. Ideal for use prior to application of epoxy floor systems, vinyl, rubber, tile, cementitious overlays, terrazzo, wood, or carpet–keeping your projects on schedule and moving efficiently.

Vapor-Tek 440 FC reduces the permeance of moisture vapor through concrete substrates to levels that are acceptable for the installation of resinous floor coatings. The high performance and quick installation features of this system make it an ideal solution. Meets ASTM F3010 for vapor permeance.

Solids

100%

Appearance/Color

Available in clear. Can be used with a Ghostshield Color Additive

Finish

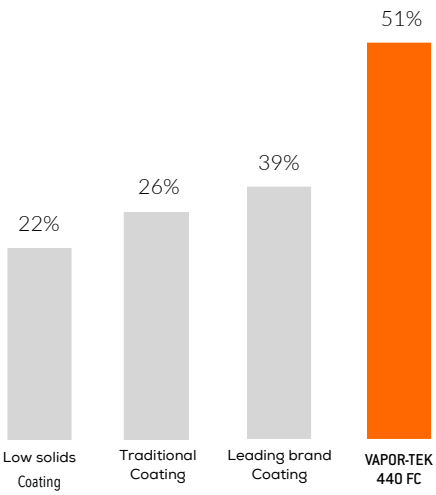
High-Gloss

Coverage

100 ft²/gallon.

VAPOR PERMEANCE

Meets the requirements of:
ASTM F3010



Percentage Improvement vs. Control

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TECHNOLOGY // ADVANTAGES

ADVANTAGES

- **Composition -** 100% solids nanotechnology driven high-performance moisture vapor barrier coating
- **Faster Cure**
- **Helps reduce effects of moisture** vapor transmission
- **May be used as a primer** to an epoxy floor system or stand-alone product before applying flooring
- **Ensures protection of moisture sensitive floor coverings**
- **Stops dusting and** allows for easy cleaning
- **No VOCs -** no odor
- **Will form an excellent bond to concrete -** will not delaminate when exposed to moisture emission rates up to 20lb/24 hr/1000 sq. ft.
- **Meets ASTM F3010 -** Standard Practice for Two-Component Resin Based Membrane-Forming Moisture Mitigation Systems for Use Under Resilient Floor Coverings
- **Excellent adhesion** to damp concrete (ASTM D7234)

APPLICATION EQUIPMENT

- Drill & Jiffy Mixer
- Spiked Shoes
- EPDM Squeegee or flat metal spring blade
- 3/8" nap shed-resistant roller (tape to remove loose roller hair)
- Painters tape, measuring and mixing containers

*For interior use only

TYPICAL PROPERTIES

Appearance - Available clear. Can be used with a Ghostshield Color Additive.

Packaging - 3 Gallon Kit

VOC's - 0 g/L

Recommended Thickness - 16 mils WFT

APPLICATIONS

- Interior
- Horizontal
- Garages
- Shop Floors
- Warehouses

SUBSTRATES

- Concrete

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TESTING DATA

TECHNICAL SPECS

Chemistry: Epoxy

Color: Clear. Can be used with a Ghostshield Color Additive.

Finish: High-Gloss

Carrier: 100% Solids

Packaging: 3 Gallon Kit - 2 Component Kit

Coverage: 100 sq. ft. per gallon at 16 mils wet film thickness.

Application Method: EPDM squeegee or flat metal spring blade.

Application Temperature: 60-85 degrees F with relative humidity below 75% and at least 5 degrees over the current dew point.

Number of Coats: 1

VOC Content: 0 g/L

TECHNICAL SPECS

Adhesion: >400 psi

Adhesion to Wet Concrete: 300 psi

Bond Strength: Stronger than Concrete

Compressive Strength: 11,600 psi

Flexural Strength: 12,800 psi

Hardness Shore D: 78-80

Tensile Strength: 9,600 psi

Permeance: 0.064 Perms

Tabor Abrasion: 50 mg loss

CURE TIMES (75°F) 50% RH

Pot Life – 5-25 minutes

Tack Free (dry to touch): 2-6 hours

Recoat or Topcoat: 6-12 hours

Full Cure (Heavy Traffic): 2-3 days

Test results are averages obtained in a controlled environment, material and curing conditions of 75°F and 50% relative humidity. Reasonable variations should be expected .

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APPLICATION

SURFACE PREPARATION:
Surface must be clean, dry, and completely free of loose particles, grease, oil, or any substance that would interfere with proper bond. Perform vapor testing to verify that the vapor pressure is below 20lb / 24hr / 1000 sq. ft. Surface depressions or surface irregularities should be filled smooth and surface cracks, grooves or other non-moving control joints should be filled before application.

When applying directly to concrete, we recommend either mechanical scarification or acid etching until a suitable profile is achieved (CSP Level 3). If acid is used to clean the concrete, neutralize the surface completely and rinse it with water prior to application. Concrete must be dry for at least 24-48 hours prior to application.

RECOMMENDED TOOLS:
Best applied using 3/8" nap shed-resistant roller. A paint brush may be appropriate for cutting in or small-scale applications. Spiked shoes, mechanical mixing device, and mixing containers are also recommended.

MIXING:
Combine two (2) Part A to one (1) Part B, by volume. Kits come prepackaged and should be used in their entirety and should not be broken down. Mix using slow speed to avoid whipping air into the coating. Improper mixing may result in product failure. Once the material is opened, it cannot be re-sealed for later use.

1. Using a mechanical mixer, mix Part A in original container at low speed for one (1) minute. Once mixed, pour Part A into larger mixing container (5 gallon pail recommended). If applicable, pour color additive into Part A and mix for an additional one (1) minute.
2. Add Part B into Part A and mix on low speed for three (3) minutes or until uniform. Do not combine more material than can be applied within a 10 - 15 minutes timeframe.

APPLICATION:
Using a brush, cut in any edges. Pour remaining material into a roller pan and apply using a 3/8" nap roller. Apply in a smooth, even, uniform manner. To help prevent visual differences in application be sure to minimize the time between tie-ins. Use control joints or natural breaks as breaking points between mixes. Continue to blend overlaps and roller marks. Vapor-Tek™ 440 FC does not self-level, so coating will cure with defects that are visible. Reroll areas that do not look satisfactory. Do not back roll coating if it begins to tack up. This could result in an orange peel texture and/or a whiteish haze in the coating. Applying the coating thicker then recommended or rolling the material when sticky will cause bubbles, roller lines, and create an inconsistent appearance.

TEMPERATURE LIMITS:
Surface and air temperatures must be at least 40°F and must not exceed 90°F during application. Floor temperature must be at least 5°F over the current dew point. Humidity content of the substrate must be <6% at time of application.

APPLICATION NOTES
- Do not apply at a temperature or thickness not recommended.
- Do not delay in pouring mixed material onto the floor.
- Do not apply over loose or unsound concrete, asphalt or bitumen
- substrates, glazed tile or nonporous brick and tile, magnesite, copper, metal, polyesters, or elastomeric membranes.
- Moving joints and shrinkage cracks may reflect through system. Joints that are designed to move may reflect through the finished flooring system if the are not honored.
- Tire marking may occur.
- KreteTek Industries Inc. is not responsible for entrapped moisture and/or water underneath applied coatings with a low rate of water vapor transmission which can deteriorate concrete resulting in a cohesive failure within the concrete surface

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APPLICATION

- This product should never be exposed to water until it is fully cured
- This product will not prevent failures caused by insufficient surface preparation, improper applications, Alkaline Silica Reactions, iconic compounds or soluble salts in the concrete
- KreteTek Industries Inc. is not responsible for failures caused by cracks in the concrete, pin holes or damage caused by use or wear. Cracks, joints are not covered by any warranty
- This product is not warranted for use with any products that are not recommended or manufactured by KreteTek Industries Inc.
- Upon application to the concrete, outgassing may occur resulting in pin holes or voids when the air is displaced. If this occurs, reapplication is necessary. The surface should be lightly grinded and dust should be removed. Make sure the surface is dry and re-coat. In severe cases, the use of a patching material made with a thickening agent may be needed on these pin-holes and voids
- Thinner applications than recommended may result in insufficient moisture vapor protection
- Any un-reacted alkaline silicate compounds within the concrete can result in osmotic action/water vapor transmission that will channel these water soluble compounds to the surface where they can effectively break the bond of the applied system as well as prevention penetration of the coating into the substrate
- Any claim of warrant breach, must be provided to KreteTek Industries Inc. in writing within 30 days of the discovery of the breach of warranty. In the event of any breach of warranty, the customers sole and exclusive remedy shall be replacement or repair of materials actually damaged (i.e., affected areas only)
- No warranty shall cover any application that does not follow the surface preparation, mixing, application and covering recommendations and procedures
- All concrete slabs must be at least 4" thick with a functioning vapor barrier
- KreteTek Industries Inc. does not warrant penetration and bond where cores are not tested unless and until project owner submits cores and lab establishes no impediment to bond or penetration is or was present
- Physical properties are typical values and not specifications

CLEAN UP

Clean up mixing and application equipment immediately after use. Use acetone or xylene. Follow solvent manufacturer's safety instructions. Be sure to follow all local, state and federal regulations when disposing of materials. Use "waterless" hand cleaner to remove dried material from skin.

PRECAUTIONS/SAFETY

Refer to the SDS sheet before use. Safety precautions must be strictly followed during storage, handling, and use. Personal Protective Equipment (PPE) should be worn at all times. PPE will include (but is not limited to): Safety glasses with side shields and high-quality nitrile gloves.

MAINTENANCE

To maintain the appearance and extend the life of the newly sealed surface, it is imperative to have a routine maintenance program. Dirt and debris that is tracked over a finished floor will quickly scratch and dull the surface. Place walk-off mats at entrances. Sweep and mop/scrub floors regularly using soft bristles/pads and a mild cleaner. Some cleaning products and equipment or improper use of these can damage a surface. Remove spills quickly to minimize damage and/or stains. For systems that support parked vehicles or other heavy items on rubber wheels, place a small piece of nonporous material, such as sheet metal or plexiglass between the tires and floor to prevent tire marks. Reapplication may be necessary in heavy traffic areas.

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SHELF LIFE / WARRANTY

SHELF LIFE

12 months from date of manufacture when stored indoors in the original unopened container at 55°F – 85°F (13°C – 29°C) in a dry location with humidity below 65%. Do not allow materials to freeze.

CONTACT

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WARRANTY

KreteTek Industries Inc. warrants our products are manufactured to strict quality assurance specifications and that the information supplied by us is accurate to the best of our knowledge. Such information supplied about our products is not a representation or a warranty. It is supplied on the condition that you shall make your own tests to determine the suitability of our product for your particular purpose. Any use or application other than recommenced herein is the sole responsibility of the user. Listed physical properties are typical and should not be construed as specifications. No warranty is made, expressed or implied, regarding such other information, the data on which it is based or the results you will obtain from its use. We shall have no liability for incidental or consequential damages, direct or indirect. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sale of our products.

Acceptance of delivery of our product means that you have accepted the terms of this warranty whether or not purchase orders or other documents state terms that vary from this warranty. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sales of our products. Our products contain chemicals that may cause serious physical injury. Before using, read the Safety Data Sheet and follow the precautions to prevent bodily harm.

Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advise are based on KreteTek Industries Inc. present knowledge and experience. However, KreteTek Industries Inc. assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. KreteTek Industries Inc. reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.

For professional use only.
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