Specifications

Bone Dry Pro Penetrating Sealer

Description

Bone Dry Pro is a permanent, VOC-free, and cost-effective penetrating concrete sealer engineered to safeguard finished flooring, adhesives, surface coatings, and roofing systems against moisture vapor transmission from concrete substrates and associated adhesion failures. This professional-grade, spray-applied formulation is suitable for application during the concrete pour, on new or existing slabs, and beneath or atop any cementitious toppings, including patches, skim coats, or self-leveling compounds. Upon application, Bone Dry Pro penetrates the substrate, cures, and consolidates to seal subsurface pores, forming a barrier that preserves the integrity of overlying finishes and adhesives by mitigating moisture vapor emission and bonding complications. Inquire with Bone Dry Products regarding our comprehensive 25-year warranty, encompassing materials and labor replacement, which provides assurance against concrete moisture and adhesion-related defects in finished surfaces and adhesives.

Moisture and PH Protection

Bone Dry Pro effectively shields finished surfaces and adhesives from moisture vapor emission in concrete substrates exhibiting relative humidity (RH) levels up to 100% and calcium chloride (MVER) rates up to 25 lbs/1,000 sq ft/24 hours. Additionally, Bone Dry Pro neutralizes elevated pH levels within concrete slabs. Following application of the Pro sealer, no further moisture testing is necessary.

Roofing System Protection

Bone Dry Pro safeguards roofing assemblies against concrete moisture-induced complications, including insulation and cover board saturation that may lead to delamination of adhered systems or heightened corrosion risk to metallic elements. By establishing a barrier within the concrete pores, Bone Dry Pro effectively mitigates moisture vapor transmission and associated adhesion failures.

Equipment and Protection

Protecting Finished Surfaces

Prior to application, all adjacent finished surfaces—including cabinetry, glass, metal finishes, and painted areas—must be adequately protected by masking with plastic sheeting extending up to 2 feet from the concrete substrate to mitigate risks of overspray-induced discoloration. In the event of overspray on painted surfaces, repainting may be employed to rectify the discoloration. Should the product dry on a finished surface, carefully scrape the residue using a razor blade, followed by the application of a Magic Eraser or mild abrasive cleaner to remove any remnants. Please note that this removal technique does not guarantee restoration of the surface to its original pristine condition.

Equipment for Application

Bone Dry Pro Sealer can be applied using a pump or battery powered sprayer with a wide fan tip. Craftsman, DeWalt, Milwaukee, and Chapin battery powered sprayers are recommended.

ASTM Standards

Curing Standards

Bone Dry Pro Sealer Complies with the Following Standards:

ASTM C309 Type 1 Class A
Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete

ASTM C156 – 17
Standard Test Method for Water Loss

ASTM C39 / C39M - 18
Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens

ASTM C1202 - 19
Standard Test Method for Electrical Indication of Concrete's Ability to Resist Chloride Ion Penetration

Concrete Moisture Standards

Bone Dry Pro sealer protects and warrants finishes utilizing the following ASTM standard testing methods to determine limitations for their products:

ASTM D1653 - 13
Standard Test Methods for Water Vapor Transmission of Organic Coating Films

ASTM E96 / E96M - 16
Standard Test Methods for Water Vapor Transmission of Materials

ASTM F2170 - 19
Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes

ASTM F1869 - 16a
Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride

Surface Preparation

New Construction Concrete Surfaces

Bone Dry Pro may be applied to cured concrete during any phase of the construction process. Prior to application, all construction residues and debris—such as dust, paint overspray, drywall compound, and similar materials—must be thoroughly removed from the slab surface via scraping, buffing, or broom sweeping. In instances where the slab has undergone intensive burnishing (resulting in a mirror-like finish) or polishing that renders it non-absorptive, **Bone Dry Etch-a-Crete** must be applied, or the surface must be mechanically abraded to restore porosity before sealer application. To assess absorptivity, conduct a water droplet test: if water droplets penetrate the concrete within 2–3 minutes, no etching or profiling is necessary. Leveling or patching products may be performed either before or after sealer application. When applying leveling compounds or patches over areas treated with Bone Dry Pro, ensure removal of any excess, pooled, or loosely adhered sealer residue prior to proceeding. For newly placed concrete slabs, a vapor retarder must be installed in direct contact with the underside of the slab, in compliance with ASTM E1643-11, ACI 302.2R-06, and ASTM F710-17 standards.

Remodeled Concrete Surfaces

Existing concrete substrates with previous coatings or treatments must undergo mechanical profiling to achieve a minimum Concrete Surface Profile (CSP) of 2. Profiled surfaces shall receive a minimum 1/8-inch overlay of a cementitious topping compound prior to the application of Bone Dry Pro sealer. Minor patching repairs, if required, may also be completed after the sealer application.

Note: As detailed in the "Warranty Information" section on page 2, Bone Dry Products includes the cementitious topping in its comprehensive 25-year warranty for flooring system replacement.

Leveling and Patch Products

Floor leveling and patching materials must be cementitious in composition. Sanding of these products may be performed either before or after the application of Bone Dry Pro sealer. The use of gypsum-based underlayments, such as Gyp-Crete, is strictly prohibited in conjunction with this product.

Cracks and Trenches

All existing cracks (excluding expansion joints) exhibiting visible gaps must be filled and troweled flush with a cementitious patching compound. For trenches, the patching material shall be extended and feathered a minimum of 4 inches beyond the saw cuts onto the adjacent concrete substrate.

Application
(Newly Construction and Remodeled Surfaces)

When applying Bone Dry Pro Sealer to cured new construction and remodeled When applying Bone Dry Pro sealer to cured concrete slabs in new construction or remodeling projects, proceed in manageable sections of 1,000 to 1,500 square feet. Apply the initial coat uniformly to achieve a saturated, lightly opaque appearance on the surface. Allow this coat to penetrate for 3 to 5 minutes, not exceeding 10 minutes, before proceeding. Apply a second coat while the first remains wet and only to areas where absorption has occurred, revealing the underlying concrete texture. Under optimal environmental conditions, the sealer dries in approximately 6 hours; however, it is recommended to allow 12 hours or overnight drying for full curing. Upon drying, the treated slab may exhibit a hazy or darkened hue, which is normal. Should excess product accumulate and dry in depressions or over-applied areas, forming thick white residues, remove the loose material through gentle scraping or light mechanical buffing.

Application Procedures When Applying During or Shortly After the Concrete Pour

Application at the time of the Concrete Pour

Option 1: Application for Burnished/Polished Finishes

For concrete slabs intended to receive a heavy burnished or polished finish, Bone Dry Pro sealer must be integrated into the finishing sequence. Apply the sealer once the concrete has achieved sufficient hardness to support foot traffic. Apply a single heavy coat of Bone Dry Pro sealer via spray, ensuring 50% overlap between machine trowel passes. Troweling may commence immediately following sealer application. Continue troweling operations as required to attain the specified finish level. If installation of finished surfaces is planned within 14 days of the concrete pour, consult Bone Dry Products for prior approval.

Option 2: Apply After the Final Trowel

Avoid heavy burnishing or polishing of the concrete substrate. The surface must retain sufficient porosity post-final troweling to facilitate sealer absorption. Following the final trowel pass, allow the slab to cure until it supports foot traffic without surface indentation. Apply a single heavy coat of Bone Dry Pro sealer via spray, ensuring 50% overlap between passes. Foot traffic is permitted once the slab is dry to the touch. Should finished surfaces be scheduled for installation within 14 days of the concrete placement, obtain prior approval from Bone Dry Products.

Spread

For broom-finished, troweled, or mechanically profiled concrete surfaces, the coverage rate for Bone Dry Pro sealer is 300 to 340 square feet per gallon. On heavily burnished (mirror-like), polished, or Etch-a-Crete-treated surfaces, the coverage rate extends to 350 to 400 square feet per gallon. In select instances, slabs with intensive burnishing or polishing may achieve coverage up to 500 square feet per gallon. Regardless of surface type, apply the product uniformly until the substrate is thoroughly saturated and a mild opaque film begins to form, signifying adequate dosage per coat.

Adhesives

Approved Adhesives

Bone Dry Products warrants the adhesion integrity of the flooring manufacturer's specified adhesive when applied to concrete substrates treated with Bone Dry Pro sealer. As a minimum stipulation, all adhesives must be trowel-applied or roller-applied formulations capable of installation over non-porous surfaces. Adhesives applied directly to the sealed concrete shall conform to the manufacturer's specifications for non-porous substrates.

Exception: Adhesives are not required to be applied as per specifications for a non-porous substrate if the Bone Dry Pro Sealer was applied during or shortly after the concrete pour.

Adhesive Application

Remove any residual construction dust, efflorescent particles extruded to the surface, and loose sealer residue. In depressions where excess product has pooled and cured, scrape or lightly abrade the loose material from the substrate. Adhesives applied directly to the treated concrete surface must adhere to the manufacturer's guidelines for application over non-porous substrates.

Exception: Adhesives are not required to be applied as per specifications for a non-porous substrate if the Bone Dry Pro Sealer was applied during or shortly after the concrete pour.

Resin Based Systems

Epoxy, urethane, polyaspartic, and other resin systems must be 100% solids. Concrete must receive a surface profile of a CSP 3 prior to Bone Dry Pro being applied. Resin systems DO NOT require a cement based top coating as part of the surface preparation.

Contact

Bone Dry Products

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Warranty Information

Please **Contact Bone Dry Products** for details on our project specific 25 year commercial warranty which includes material and labor to remove and replace the cementitious top coating, adhesive, and finished surfaces if there is a concrete moisture, bonding, or PH related issue. Bone Dry Pro warranties are project specific, and a warranty is executed after invoicing and the warranted project has been completed.