

# **Specifications**

# **Bone Dry Pro Penetrating Sealer**



# **Description**

Bone Dry Pro penetrating concrete sealer is a permanent, VOC Free, cost effective solution to protecting finished flooring, finished surfaces, and roofing systems from concrete moisture and bonding related issues. Our Pro sealer is a spray on product and can be applied at the time of the concrete pour. This product can be applied to new and existing concrete surfaces and can be applied underneath or over the surface of any cement based top coating (patch, skim coat, or level). Once applied, Bone Dry Pro penetrates and solidifies to fill the pores below the surface of the concrete slab. This barrier beneath the concrete substrate protects finished surfaces and adhesives from concrete moisture and bonding related issues. Call Bone Dry Products about our 25-year material and labor replacement warranty which protects finished surfaces and adhesives from concrete moisture and bonding related issues.

#### **Moisture and PH Protection**

Bone Dry Pro protects finished surfaces and adhesives from concrete slabs containing relative humidity (RH) readings reaching 100% as well as calcium chloride readings reaching 25 lbs. Bone Dry Pro also neutralizes high PH in concrete slabs. No additional moisture testing is required after the Pro sealer has been applied.

# **Roofing System Protection**

Bone Dry Pro protects roofing systems from potential concrete moisture related issues. These concrete moisture issues include saturation of insulation and cover boards from concrete moisture causing adhered systems to delaminate or increase the risk of corrosion to metal components. Applying Bone Dry Pro solves concrete moisture and bonding related issues by creating a barrier beneath the surface of the concrete.

# **Equipment and Protection**

#### **Protecting Finished Surfaces**

Any finished surfaces such as cabinetry, glass, finished metal surfaces, and finished painted areas must be masked off with plastic up to 2 feet from the concrete to prevent over spray from causing discoloration. Painted areas affected by over spray can be repainted to address the discoloration. If product dries on a finished surface, use a razor blade to lightly scrape the product off the surface and Magic Eraser or soft scrub to remove the remainder of the product. This method is not guaranteed to return the finished surface to like new 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 compression strength requirements for the following concrete curing standards (All results achieve those of a 7 day water cure):

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

**ASTM C309 - 19** 

Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete

#### **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

# Application Procedures when Applying to Cured Concrete Surfaces

# **Surface Preparation**

#### **New Construction Concrete Slabs**

Bone Dry Pro can be applied to newly cured concrete with no wait time. All construction material and debris (dust, paint, drywall mud, etc.) must first be scraped, buffed, or broom swept from the surface of the slab. If a slab has received a heavily burnished (mirror like) or polished finish to the point where it's no longer absorptive, **Bone Dry's Etch-a-Crete** must be applied, or the surface must be mechanically profiled to open the pores of the slab. If there is a concern about absorption perform a water drop test to see if droplets of water absorb into the concrete within 2-3 minutes. If leveling or patching is taking place it can be completed before or after the sealer is applied. If applying leveling or patch to areas where Bone Dry Pro has been applied, remove any loose, pooled, over applied product prior to applying prep. For newly poured concrete, a vapor barrier must be installed and must be directly below and in contact with the concrete slab and following ASTM E 1643-11, ACI 302.2R-06 and ASTM F 710-17 guidelines.

#### **Remodeled Concrete Surfaces**

Bone Dry Pro sealer must be applied to a clean and porous concrete surface. Existing concrete surfaces with prior surface coatings must be mechanically profiled to a concrete surface profile of a 2 (CSP 2). Remodeled concrete surfaces must receive a minimum 1/8<sup>th</sup> inch top coating of a cement-based leveler after being profiled to a minimum of a CSP 2. Floor leveling must be

completed prior to applying the Bone Dry Pro sealer. If needed, minor patching can be completed after the sealer is applied.

#### **Leveling and Patch Products**

Floor leveling and patch products must be cement-based. Floor leveling products being applied to remodeled concrete surfaces must have a minimum compressive strength of 4,000 psi at 28 days. Sanding of leveling and patch products can be completed prior to or after the Pro Sealer is applied. Gyp-Crete is prohibited from being used with this product.

#### **Cracks and Trenches**

Any existing cracks (**expansion joints not included**) with visible gaps must be filled and floated over with cement based patch. Trenches must be floated over the saw cuts 4 inches onto the existing concrete.

# **Application (Cured Surfaces)**

When applying Bone Dry Pro Sealer to cured new construction and remodeled concrete slabs apply the sealer in 1,000 to 1,500 sqft sections. Apply one coat of sealer so that the slab receives a wet to light cloudy appearance. Once the section is completed let the first coat absorb for between 3-5 minutes and **no more than** 10 minutes. Apply a second coat to the section while the first coat is still wet. Only apply a second coat to areas where the sealer has penetrated, and the texture of the concrete has become apparent. After a second coat has been applied, allow a minimum of 12 hours for the product to dry. Letting the product dry overnight is preferred. Once dry, the slab may have a cloudy or darkened appearance. If a thick white pool gathers and dries in low spots or over applied sections, remove the loose dried product by scraping or lightly buffing the concrete.

# **Application Procedures When Applying During the Concrete Pour**

# **Application at the time of the Concrete Pour**

# Option 1: Application for Burnished/Polished Finishes

If the slab needs to receive a heavy burnished or polished finish, the Bone Dry Pro sealer must be applied during the finishing process. Allow the concrete to harden until it can be walked on and while it is still porous. Spray one coat of Bone Dry Pro sealer heavily onto the concrete overlapping 50%. The concrete can be passed with a trowel immediately after the sealer is applied. Once the sealer is applied continue to trowel as needed to achieve desired finish. If installing finished surfaces less than 14 days after pour, contact bone dry for approval.

#### **Option 2: Apply After the Final Trowel**

Do not heavily burnish or polish the concrete. The slab must be porous enough at the surface after the final trowel is completed to absorb the sealer. After the final trowel has taken place, allow the slab to dry until it can be walked on without indenting the surface. Apply Sealer in 1,000-1,500 sqft sections. Allow the sealer to absorb for 5-8 minutes. After 5-8 minutes apply a second coat in the areas that have absorbed into the slab. If a curing compound is being applied, it must be applied after the Bone Dry Pro sealer has been applied. If installing finished surfaces less than 14 days after pour contact bone dry for approval.

#### **Spread**

For broom trowel and mechanically profiled surfaces the spread for the Pro sealer is 300-340 square feet per gallon. For heavily burnished (mirror like) or polished surfaces and surfaces opened with **Etch-a-Crete**, the spread for the Pro sealer is 350-400 square feet per gallon. In certain cases, slabs with a heavily burnished (mirror like) or polished finish may allow the product to spread 500 sqft per gallon. Always apply the product until the slab is fully wet and until a lightly cloudy appearance starts to occur. This will indicate that enough product is being applied during each coat.

#### **Adhesives**

# **Approved Adhesives**

Bone Dry Products warrants the bond of the finished flooring manufacturer's specified adhesive applied to the sealed concrete substrate. As a minimum requirement all adhesives must be troweled on or rolled on products. Adhesives must be able to be applied over a non-porous substrate. Adhesives applied directly to the sealed concrete surface must be applied as per specifications for a non-porous substrate.

**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 the concrete pour.

#### **Adhesive Application**

Remove any construction dust, particles pushed to the surface, and loose product dried on the surface. Low spots where product puddles and dries can be scraped or buffed off the surface if loose. Adhesives applied directly to the sealed concrete surface must be applied as per specifications for a non-porous substrate.

**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 the concrete pour.

# **Resin Based Systems**

Epoxy, urethane, polyaspartic, and other resin systems must receive a surface profile of a CSP 3. 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 leveler, adhesive, and finished surfaces if there is a concrete moisture related issue. Bone Dry Pro warranties are project specific, and a warranty is executed after invoicing and the warranted project has been completed.