



TECHNICAL DATA SHEET **MOISTURE STOP+**

Description

Moisture Stop+ 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. Moisture Stop+ is a spray on product and can be applied at the time of the concrete pour, 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, Moisture Stop+ 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.

Moisture and PH Protection

Moisture Stop+ protects finished surfaces and adhesives from concrete slabs containing relative humidity (RH) readings reaching 100% as well as calcium chloride readings reaching 25 lbs. Moisture Stop+ also neutralizes high PH in concrete slabs.

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

Moisture Stop+ can be applied using a pump or battery powered sprayer with a wide fan tip. Round up and Chapin sprayers are recommended. Moisture Stop+ can also be installed using a push broom.

ASTM Standards

Curing Standards

Moisture Stop+ 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

Moisture Stop+ 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 for Existing Concrete

New Concrete Slabs

Moisture Stop+ 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 burnished finish, the surface must be mechanically profiled to open the pores of the slab. If major leveling and skim coating is taking place it must be completed using a cement based product and be completed prior to applying Moisture Stop+. If minor patching and skim coating is taking place it can be completed after the sealer is applied.



TECHNICAL DATA SHEET **MOISTURE STOP+**

Remodeled Concrete Surfaces

Moisture Stop+ 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). Concrete surfaces with known moisture issues and surfaces over 10 years of age must receive a top coating of a cement-based product after being profiled to a CSP 2. Floor leveling and skim coating must be completed prior to applying Moisture Stop+ sealer. If sanding the leveled or skim coated surface is needed, complete this prior to applying Moisture Stop+. If needed, minor patching and skim coating can also be completed after the sealer is applied. Epoxy, urethane, polyaspartic, and other resin systems DO NOT require a cement based top coating as part of the surface preparation.

Leveling, Patch, and Skim Coating Products

Floor leveling and skim coat products must be cement-based. Floor leveling products must have a minimum compressive strength of 4,000 psi at 28 days. Skim coat products must have a minimum compressive strength of 3,000 psi at 28 days. 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.

Applying to Existing Concrete

In 1,000 to 2,000 thousand sqft sections, apply one coat of sealer so that the slab receives a wet to light cloudy appearance. Let the first coat absorb for **no more than 25 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 appearance or darkened appearance. If a thick white pool gathers and dries in low spots remove the loose dried product by lightly scraping the concrete.

Applying at the Concrete Pour

Option 1: Application for Burnished Finishes

If the slab needs to receive a burnished finish, Moisture Stop+ must be applied during the finishing process. Allow the concrete to harden until the slab can be walked on with only minor indentations in the surface. Spray one coat of Moisture Stop+ heavily onto the concrete overlapping 50%. Concrete can receive a finish trowel immediately after the sealer is applied. Once the sealer is applied continue to finish trowel as needed to achieve desired finish. If installing finished surfaces less than 14 days after pour contact Penntek Industrial Coatings for approval.

Option 2: Apply After the Final Trowel

Do not burnish the concrete. If a curing compound is being applied it must be applied after Moisture Stop+ has been applied.

Slab must be porous enough at the surface after the finish 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 1,000-2,000 square foot sections. Allow sealer to absorb for 5-8 minutes. After 5-8 minutes apply a second coat in the areas that have penetrated into the slab. 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 Pro sealer is 200-225 square feet per gallon.

Adhesives

Approved Adhesives

Penntek Industrial Coatings warrants the bond of the manufacturer's specified adhesive applied to the sealed concrete substrate. As a minimum requirement all adhesives must be trowel on or roll on products. Adhesives must be able to be applied over a non-porous substrate except when Moisture Stop+ is applied at the time of the concrete pour. Contact Penntek Industrial Coatings to receive approval for the manufacturer's specified adhesive being used on a Penntek Industrial Coatings warranted project.

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 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 spec for a non-porous substrate if Moisture Stop+ was applied during the concrete pour.

Contact

Penntek Industrial Coatings

7850 Lakeville Blvd.

Lakeville, MN 55044

(952) 491-0616

Email: techsupport@penntekcoatings.com