

PS111 Curing Aid & Hardener WB Penetrating Sealer

Zero VOC, Water Based Concrete Curing Aid & Hardener

Page 1

Product Description

PS111 is a proprietary water based ready-to-use silicate treatment that is applied to uncolored and unsealed freshly placed interior or exterior concrete. It is not film forming and penetrates deeply into the pores and capillaries of the top layer of a surface. The PS111 chemically reacts with calcium hydroxide within matrix of structure of concrete to form added Calcium Silicate Hydrate (CSH) which is the main binder in concrete. This technology helps with the proper curing and hydration of concrete by reducing rapid water evaporation while retaining breathability. The PS111 is easier, more efficient, and less costly to apply than traditional curing agents or methods and also becomes a permanent part of the concrete itself. It does not interfere with the subsequent application of penetrating sealers, the bonding of topical coatings, or the adhesion of glues or mastics used in floor coverings. It is an ideal treatment for smooth troweled or broom finished concrete surfaces. The PS111 also improves the hardness, strength, abrasion and wear resistance, long term durability, and overall integrity of a treated surface. It reduces dusting not caused by actual surface defects, provides long term protection against wear and traffic, and lowers the overall maintenance of a surface. The PS111 is environmentally friendly, VOC compliant, non-flammable, non yellowing, and odorless. It is breathable with minimal impact to traction coefficient. PS111 has a clear appearance. Upon proper application, the substrate will have little, or no, noticeable change in appearance when dry.

Recommended Uses

PS111 was originally developed for commercial and industrial applications and is widely used throughout North America to this day for those applications. Concrete Sealers USA is now also making this professional grade sealer available to the residential market so small contractors, applicators, and do-it-yourselfers can enjoy the same superior benefits that architects, engineers, and large contractors have enjoyed for years. PS111 is recommended as a curing aid and hardener for smooth troweled or broom finished surfaces. It is ideal for curing newly placed concrete such as parking lots and structures, marine structures, loading docks, median barriers, bridge decks, concrete pavement, piers, ramps, plazas, courtyards, and balconies. It is also recommended for workshop floors, warehouse floors, automotive garage floors, retail store floors, pole barn and shed floors, basement floors, garage floors, driveways, sidewalks, walkways, porches, pool decking, and patios. It is suitable for horizontal or vertical and interior or exterior applications. Compatible with glues, mastics, topical coatings, and penetrating sealers.

Product Characteristics

SDS Information / Physical and Chemical Properties

Boiling Point:	212° F	pH:	11.5-12.5
Vapor Pressure:	N/A	Flashpoint:	N/A
Solubility in Water:	Yes	Flammable Limits:	Lower Limit: N/A; Upper Limit: N/A
Evaporation Rate:	N/A	Finish:	Flat/Clear
Appearance and Odor:	Clear w/ No Odor	Drying Time**:	Dry to touch 1-3 hours; traffic 6-12 hours
Specific Gravity:	(H ₂ O-1): 1.15 @ 20° C	Shelf Life***:	1 year unopened
% Volatile by Volume:	0 g/L		

Coverage Rates*: 300-450 sq. ft./gal. for smooth troweled concrete and 200-250 sq. ft./gal. for broom finished surfaces.

*Coverage rates are approximate and for estimating purposes only. Application rate based upon porosity and absorption. Always test absorption prior to application.

**Drying times are for estimating purposes only. Actual drying time is based upon temperature, humidity, air flow.

***Store container upright indoors in a cool, dry place and maintain temperature of 55°F to 85°F.

Performance Characteristics

Meets the ASTM C309 moisture retention requirements (0.55kg/m²/72 hrs) for film forming curing agents on smooth troweled concrete.

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Page 2

Color

PS111 has a clear appearance. Upon proper application, the substrate will have little, or no, noticeable change in appearance when dry.

Ordering & Shipping Information

Packaging: 1 gal. Jugs
5 gal. Pails
55 gal. Drums

Shipping: Normal package delivery and trucking

Surface Preparation

The surface must be porous enough to allow penetration into the substrate. If applied to freshly placed concrete, surfaces should be clean, dry, free of bleed water, final finishing process completed, and sufficient strength to be stood on without being marred. Added benefits can be obtained by waiting 7 days after placement when peak hydration and off gassing have slowed enough to allow better penetration of the curing aid into the substrate. Surfaces should not be burnished or polished prior to application. PS111 can be applied to bull floated surfaces, broom finished surfaces, and unburnished smooth troweled surfaces. For existing concrete, surface should be free of surface laitance, dust, dirt, debris, mildew, oil, grease, previous sealers, curing agents, paint or other surface coatings, and other contaminants.

Application

Always test porosity prior to application, especially on very dense surfaces. Surface should be dry for proper penetration of the sealer. Should not apply to damp or wet surfaces or if rain is expected within 12 hours after application. Product is a one part system and requires no special mixing. Stir material thoroughly before and during application. Do not apply below 40°F or above 95°F during the application or drying period. Apply uniformly with a low pressure sprayer. When applying the material, work in small, manageable areas at a time in order to maintain a wet edge. The PS111 should be applied in an overlapping or circular pattern to ensure areas are not missed. Apply material to the point of rejection and ensure it is fully absorbed within 10 minutes without puddles. Areas of greater porosity may require application of more PS111 but only apply additional material as needed. Use a soft bristled broom or microfiber pad to evenly distribute product as well as disperse any puddles or excesses. Do not allow excesses to dry on a surface. Excesses can result in a gel or white residue on surface but it can normally be easily removed by flushing with clean water and use of a stiff bristled broom. Generally, only one application is required. If additional coats are desired and more product can be absorbed, wait approximately 1-2 hours between coats or until previous application has dried fully. Clean application materials with warm water.

Limitations

PS111 is designed to work only on uncolored and unsealed freshly placed interior or exterior porous concrete surfaces and is not intended for asphalt. Concrete must be allowed to cure a minimum of 28 days prior to allowing topical coatings, adhesives, or water repellents. This product may damage vegetation or may etch glass, aluminum, and metal. Avoid contact with eyes and skin. Sealer may be damaged if frozen prior to use. Membrane forming curing agents may be more appropriate in extremely hot, low humidity, or high wind weather conditions or when specific curing requirements need to be satisfied. Company does not warranty specific performance results or compatibility with products manufactured by others. The Company shall bear no liability, other than replacement of defective product. A small test must be conducted prior to application. Based upon this test, the purchaser shall determine for themselves the suitability of this product for the intended use.

Environmental & Regulatory

PS111 complies with EPA, FDA and OSHA strict requirements and contains no solvents or Volatile Organic Compounds (VOC). This product is considered a non-hazardous chemical under OSHA Hazard Communication Standard (29CFR 1910.1200). Contact may cause skin or eye irritation. Using with adequate air ventilation, eye protection, and gloves is recommended.

Safety & First Aid Precautions

Eyes: Flush with water for at least 15 minutes.
Skin: Wash thoroughly with soap and water.
Inhalation: Move subject to fresh air.
Digestion: Consult physician immediately.