

PS109 Silane Water Repellent SB-100 Penetrating Sealer

Low VOC, Solvent Based Sealer for Dense Concrete & Masonry

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Product Description

PS109 is a penetrating, 100% chemically reactive solvent based alkyltrialkoxysilane which repels water and moisture from concrete and masonry offering invisible protection and a low VOC. At only 5 angstroms, its small particle size makes it ideal for very dense substrates made of high performance concrete such as cast in place, poured in place, and reinforced surfaces. It penetrates deeply and chemically reacts with unsealed concrete and masonry components for long lasting protection. PS109 seals pores and capillaries of substrates restricting liquid and moisture absorption while allowing excellent vapor transmission. It combats efflorescence, freeze/thaw damage, deicing chemicals, acid rain deterioration, salt intrusion, UV damage, scaling and spalling, dirt buildup and deep staining, mold and mildew, alkali attack, and corrosion of reinforcing steel. It is designed to provide a high level protection against wind driven rains. The PS109 is non-etching and will not harm uncoated glass windows, metal frames, or painted surfaces and leaves no residue to clean. It is also UV resistant and nonyellowing. PS109 has a clear appearance. Upon proper application, the substrate will have little, or no, noticeable change in appearance when dry.

Recommended Uses

PS109 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. PS109 is recommended for sealing dense concrete and masonry surfaces. It is ideal for sealing commercial and residential structures such as parking lots and structures, marine structures, loading docks, median barriers, bridge decks, pavements, piers, ramps, plazas, court-yards, and balconies. It is also recommended for home and building exteriors, driveways, sidewalks, walkways, porches, steps, pool decking, patios, and other concrete and masonry surfaces. It is suitable for horizontal or vertical and interior or exterior applications. Not intended for below grade waterproofing.

Product Characteristics

SDS Information / Physical and Chemical Properties

Boiling Point:	N/A	pH:	N/A
Vapor Pressure:	N/A	Flashpoint:	149° F
Solubility in Water:	N/A	Flammable Limits:	Lower Limit: N/A; Upper Limit: N/A
Evaporation Rate:	N/A	Finish:	Flat/Clear
Appearance and Odor:	Clear w/ Solvent Odor	Drying Time**:	Dry to touch 1-2 hours; traffic 8-12 hours; wheel traffic 24-48 hours
Specific Gravity:	(H ₂ O-1):.875	Shelf Life:	2 years unopened
% Volatile by Volume:	<250 g/L		
Coverage Rates*:	200-350 sq. ft./gal. for dense concrete and masonry 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, and air flow.

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Performance Characteristics

ASTM C672 Scaling Resistance:	Freeze/thaw cycle – 100 day cycle. Passes. No scaling
ASTM C642 Water Absorption:	95% Reduction in 24 Hours
ASTM D1653 Water Vapor Permeability:	>85% Breathability
ASTM E514 Water Repellency/ Wind Driven Rain:	100% Reduction
ASTM E96 Water Vapor Transmission:	<5% Reduced Rate
ASTM G53 Weathering (2400 Hours):	<5% Loss of Repellency
NCHRP 244, Series IV – 4.1 Southern Exposure:	97% Reduction in Chloride Ion Content
NCHRP 244, Series IV – 4.1 Northern Exposure:	88% Reduction in Chloride Ion Content
NCHRP 244 Series – Weight Gain:	85% Reduction

Color

PS109 has a clear appearance. Upon proper application, the substrate will have little, or no, noticeable change in appearance when dry.

Ordering & Shipping Information

Packaging:	5 gal. Pails 55 gal. Drums
Shipping:	Normal package delivery and trucking

Surface Preparation

Substrates to be sealed must be a minimum of 28 days old and/ or be fully cured. The surface must be clean and porous enough to allow penetration into the substrate. Surfaces should be clean and free of surface laitance, dust, dirt, debris, mildew, oil, grease, previous sealers, curing agents, paint or other surface coatings, and other contaminants. If acid or other cleaning compound is used for cleaning or etching the surface, neutralize the surface completely before application of PS109.

Application

Always test porosity prior to application. Surface should be dry for proper penetration of the sealer. Should not apply to wet or damp surfaces or if rain is expected within 4 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 material, work in small, manageable areas at a time in order to maintain a wet edge. Product should be applied to the point of rejection and be fully absorbed within 10 minutes without puddles. Use a broom, roller, or brush to evenly distribute product as well as disperse any puddles as excessive or over application may cause discoloration of the substrate. For dense surfaces, one saturation application is generally sufficient. However, for porous surfaces where additional product can be absorbed, multiple saturation applications may be applied to enhance performance. Clean application materials with warm water or mineral spirits.

Limitations

PS109 is designed to work only on cured dense concrete and other masonry substrates and is not intended for asphalt. This product may damage vegetation, frost or damage plastic window panes, and remove special coatings from glass. Avoid contact with eyes and skin. Sealer may be damaged if frozen prior to use. Not intended to seal cracks. Will not remediate structurally unsound surfaces with defects. PS109 is not oleophobic and is not intended as an oil repellent. The 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.

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Environmental & Regulatory

PS109 contains solvents and <250 g/L Volatile Organic Compounds (VOC) and is combustible. This product is considered a hazardous chemical under OSHA Hazard Communication Standard (29CFR 1910.1200). Keep away from heat, sparks, and open flames. Keep containers closed until ready to use. Provide adequate ventilation. To prevent vapor build up and possible explosion, open door and windows and provide cross ventilation. Do not smoke when using. Solvent vapors can cause respiratory irritation. Contact may cause skin or eye irritation. Using with adequate air ventilation, eye protection, and gloves is recommended. Do not reuse container without commercial cleaning. Dispose of in accordance with applicable federal, state, and local regulations.

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.