



Architectural Coatings

Perma-Crete Exterior Vertical Concrete Stain (VCS)

GENERAL DESCRIPTION

Perma-Crete Vertical Concrete Stain (VCS) is an opaque water repellent designed primarily for spray application to exterior, above ground, pre-cast and tilt-up masonry substrates. It is alkali and efflorescence resistant and can be applied to a substrate with a pH of 7 to 13. Perma-Crete VCS provides resistance against water, UV light, staining, is breathable, and is a quick drying product which allows for a second coat application, typically in fifteen minutes. Perma-Crete VCS will not peel, crack or blister from a properly prepared masonry or previously painted substrate. Perma-Crete VCS is ideal for use on the walls and support structures of commercial buildings, concrete highway barriers, and bridge abutments. Perma-Crete VCS is not designed to waterproof concrete block or other porous substrates.

RECOMMENDED SUBSTRATES

Brick	Fiber Cement Siding	Tilt-Up
Concrete	Masonry	
Concrete Block (CMU)	Stucco	

CONFORMANCE STANDARDS

VOC compliant in all regulated areas

TINTING AND BASE INFORMATION

4-5110	White & Pastel Base
4-5130	Deeptone Base*
4-5140	Ultra Deep Base*

*Must be tinted before use.

Refer to the appropriate color formula book, automatic tinting equipment, and or computer color matching system for color formulas and tinting instructions.

FEATURES AND BENEFITS

Features	Benefits
Quick Drying Time	Turns jobs faster
Alkali/Efflorescence Resistance	Applies to fresh concrete at 7 days & surface pH of less than 13; minimizes salt deposits
Protects Against Environmental Contamination	Resists salt spray and dirt
Application down to 35°F (2°C)	Extends the painting season
Water Vapor Permeance	Allows breathability
Excellent Application Properties	Reduces application time and provides a natural uniform appearance
Mildew Resistant Coating	Mildew and fungal growth resistance on paint film
UV Resistance	Extends newly painted look
Water Repellent	Reduces water penetration

PERFORMANCE DATA

Property	Test Method	Results
Adhesion	ASTM D3359	Pass
Alkali/Efflorescence Resistance	TT-P-1511B	Pass, no efflorescence, blistering or saponification
YPermeability	ASTM D1653	Greater than 15 perms
Salt Spray	ASTM B117	Pass, 500 hours / No yellowing
Weathering	ASTM D822	Pass, 3000 hours / No change in performance or appearance
Water repellency	ASTM D4446	Pass, no water absorption

PRODUCT DATA

PRODUCT TYPE:	100% Acrylic
SHEEN:	Flat
VOLUME SOLIDS*:	39% +/- 2%
WEIGHT SOLIDS*:	53% +/- 2%
WEIGHT/GALLON*:	10.9 lbs. (4.9 kg) +/- 0.2 lbs. (91 g)
VOC:	<100 g/L (0.8 lbs./gal.)

*Product data calculated on product 4-5110.

COVERAGE: 200 to 400 sq. ft. (19 to 37 sq. meters) per US gal. (3.78L)

Wet Film Thickness:	4.0 mils to 8.0 mils
Wet Microns:	102 to 203
Dry Film Thickness:	1.6 mils to 3.1 mils
Dry Microns:	41 to 79

Coverage figures do not include spray loss, loss due to surface irregularities and porosity, nor material loss when mixing.

DRYING TIME:	Dry time @ 77°F (25°C); 50% relative humidity.
To Touch:	15 minutes
To Recoat:	15 minutes

Drying times listed may vary depending on temperature, humidity, film build, color, and air movement.

CLEANUP: Clean tools and hands immediately with warm, soapywater.

DISPOSAL: Contact your local environmental regulatory agency for guidance on disposal of unused product. Do not pour down a drain or storm sewer.

FLASH POINT: Over 200°F (93°C)

Read Label and Safety Data Sheet Prior to Use. See other cautions on last page.

GENERAL SURFACE PREPARATION

Surfaces to be coated must be dry, clean, sound, and free from all contamination including loose and peeling paint, dirt, grease, oil, wax, concrete curing agents and bond breakers, chalk, efflorescence, mildew, rust, product fines, and dust. Remove loose paint, chalk, and efflorescence by wire brushing, scraping, sanding, and/or pressure washing. Caulk all cracks and open seams. Sand all glossy, rough, and patched surfaces. Feather back all rough edges to sound surface by sanding.

Remove mildew by washing with a mixture of 1 part liquid chlorine bleach to 3 parts water. Before use, be sure to read and follow instructions and warnings on label. Rinse thoroughly.

WARNING! If you scrape, sand, or remove old paint, you may release lead dust or fumes. LEAD IS TOXIC. EXPOSURE TO LEAD DUST OR FUMES CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a properly fitted NIOSH-approved respirator and prevent skin contact to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the USEPA National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead. In Canada contact a regional Health Canada office. Follow these instructions to control exposure other hazardous substances that may be released during surface preparation.

BRICK: New brick and mortar should cure for at least 7 days and preferably 30 days prior to painting. The pH of the substrate must be less than 13. Painting glazed brick is not recommended due to potential adhesion problems.

CONCRETE and MASONRY: New concrete should cure for at least 7 days and preferably 30 days prior to painting. The pH of the substrate must be less than 13.

CONCRETE/MASONRY BLOCK: Mortar should cure for at least 7 days and preferably 30 days prior to painting. Surfaces previously coated with water thinned cement-based paint must be prepared with extra care. If the material appears to be adhering tightly, a masonry sealer may be applied to seal the surface. Check adhesion by applying a piece of masking tape. If the sealer peels off and has loose particles, remove all chalking or crumbling material, re-seal and re-check adhesion.

FIBER CEMENT: Fiber cement siding and trim may present potential adhesion, alkali burn, and efflorescence problems. New board should be aged for at least 30 days prior to priming and painting. The pH of the substrate must be less than 13 and the moisture content must be less than 12% prior to priming and topcoating. All cracks and opens seams should be caulked to prevent water penetration. Preprimed board from the manufacturer may not be uniformly or completely sealed. It is recommended that an alkali resistant primer be applied to ensure complete and uniform sealing prior to topcoating.

STUCCO: New stucco should cure for at least 7 days and preferably 30 days prior to painting. The pH of the substrate must be less than 13. Surface chalk from the curing or aging process should be removed then sealed with an appropriate sealer to rebind and restore the surface to a sound condition.

TILT-UP or PRE-CAST CONCRETE: New tilt-up or pre-cast should cure for at least 30 days and preferably 90 days prior to priming and painting. The pH of the substrate must be less than 13 before priming with an alkali resistant primer. Moisture content should be less than 12% prior to priming and topcoating. All bond breakers, release agents, and admix plasticizers must be removed to prevent adhesion problems. Bond breakers and similar surface contaminants should be removed as directed by the tilt-up manufacturer which can include specific cleaners, powerwashing, and/or surface profiling by mechanical methods. Surface chalk from the curing or aging process should be removed then sealed with an appropriate sealer to rebind and restore the surface to a sound condition. Additional surface preparation guidelines can be found by referring to Technical Bulletin AF-2008-8 Guide on Painting Tilt-Up Concrete. Information or a copy of the bulletin can be obtained by calling 1-800-441-9695.

RECOMMENDED PRIMERS

Product is self-priming. Refer to surface preparation recommendations.

PACKAGING

5-Gallon (18.9 L)

LIMITATIONS OF USE

Apply only when air and surface temperatures are 35°F (2°C) or above and surface is at least 5°F (3°C) above the dew point. Air and surface temperatures must remain 35°F (2°C) or above for the next 24 hours. For optimum application properties, bring material to at least 50°F (10°C) prior to application. Surface pH limitation is 7 to 13. Avoid exterior application late in the day when dew and condensation are likely to form or if rain or snow is expected.

Do not apply to horizontal concrete surfaces. Not recommended for use on surfaces demonstrating hydrostatic or high vapor pressure or for immersion service. Not intended for wood.

PROTECT FROM FREEZING. USE WITH ADEQUATE VENTILATION. KEEP OUT OF REACH OF CHILDREN.

While this product provides a mildew resistant coating, growth may still occur if the substrate is not properly prepared prior to painting and/or if the substrate is consistently exposed to conditions conducive to mold, mildew, and algae.

APPLICATION INFORMATION

Stir thoroughly before use. Read all label and Safety Data Sheet (SDS) information prior to use. SDS are available through our web site or by calling 1-800-441-9695.

Application Equipment: Spray application is recommended. Cross-hatch application is preferred for best uniformity. Two coats are recommended for maximum uniformity. First coat will penetrate and seal; second coat provides a uniform appearance. For darker colors on broad porous surfaces, a third coat may be required to achieve a uniform appearance. Small areas may be brushed or rolled using high-quality synthetic applicators.

Airless Spray: Minimum requirements - Pressure 1800-2400 psi; tip size .015"-.021"; flow rate 1.0 gal/minute. Spray equipment must be handled with due care and in accordance with manufacturer's recommendations. High pressure injection of coatings into the skin by airless equipment may cause serious injury.

Brush: High Quality Polyester/Nylon Brush

Roller: 1/2" - 3/4" nap synthetic roller cover

Thinning: Do not thin.

Permissible temperatures during application:

Material:	35 to 90°F	2 to 32°C
Ambient:	35 to 100°F	2 to 38°C
Substrate:	35 to 100°F	2 to 38°C

PRECAUTIONS

WARNING! HARMFUL IF INHALED. HARMFUL IF SWALLOWED. MAY CAUSE SKIN IRRITATION. Sanding and grinding dusts may be harmful if inhaled. This product contains crystalline silica which can cause lung cancer or silicosis. The risk of cancer depends on the duration and level of exposure to dust from sanding surfaces or mist from spray applications. Do not breathe vapor or mist. Do not swallow. Do not get on skin or clothing. Avoid contact with eyes. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling. Provide fresh air ventilation during and after application and drying. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this preparation. Use personal protective equipment as required. DANGER - RAGS, STEEL WOOL OR WASTE SOAKED WITH PERMA-CRETE STAIN MAY SPONTANEOUSLY CATCH FIRE IF IMPROPERLY DISCARDED. IMMEDIATELY AFTER EACH USE, PLACE RAGS, STEEL WOOL OR WASTE IN A SEALED WATER-FILLED METAL CONTAINER. **Note: These warnings encompass the product series. Prior to use, read and follow product-specific SDS and label information. FIRST AID:** If swallowed, rinse mouth with water (only if the person is conscious). Call physician immediately. Do not induce vomiting unless directed to do so by medical personnel. If in eyes, rinse with water for 15 minutes. Check for and remove any contact lenses. If on skin, rinse well with water. Wash with soap and water. Get medical attention if irritation develops. If inhaled, remove to fresh air. Call physician immediately. Keep out of the reach of children. For workplace use, an SDS is available from your retailer or by calling (412) 492-5555. EMERGENCY SPILL INFORMATION: (412) 434-4515 (U.S.).

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