Architectural Coatings

PERMA-CRETE® Interior/Exterior Alkali Resistant Primer

GENERAL DESCRIPTION

PERMA-CRETE® Alkali Resistant Primer, 4-603, is specifically designed for interior and exterior, above grade, wood, plaster, wallboard, and masonry surfaces. This primer provides excellent sealing and stain blocking performance. PERMA-CRETE 4-603 is formulated to seal and protect the topcoat from hot alkali found in plaster, masonry, and cement. It blocks out stains such as, water, smoke, ink, markers, and tannins. This PERMA-CRETE Alkali Resistant Primer is ideal for use on a variety of exterior masonry projects including high-rise apartments and condominiums, tilt-up warehouses, hospitals, schools, concrete parking garage overheads, hotels, resorts and residential homes.

RECOMMENDED SUBSTRATES

Brick	Cinder Block	Stucco
Concrete	Fiber Cement Siding	Tilt Up
Concrete Block (CMU)	Masonry Sufaces	Wallboard
Wood	Plaster	

APPLICATION INFORMATION

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

Application Equipment: Apply with a high quality brush, roller, paint pad or by spray equipment.

Airless Spray: Minimum requirements: Pressure 1800 - 2400 psi, tip 0.015" - 0.021", flow rate 1 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: Polyester/Nylon Brush
Roller: 3/8" - 3/4" nap roller cover
Thinning: Not recommended. For maximum stain blocking properties, do not thin. May be thinned sparingly with water if needed for other applications.

APPLICATION INFORMATION (continued)

Permissible temperatures during application:

Material:	35 to 100ºF	2 to 38ºC
Ambient:	35 to 100ºF	2 to 38ºC
Substrate:	35 to 100ºF	2 to 38ºC

PRODUCT DATA

PRODUCT TYPE:	100% Acrylic
BASE/COLOR:	4-603 White
SHEEN:	Non Flat >5
CLEANUP:	Soap and Water
VOLUME SOLIDS:	37% +/- 2%
WEIGHT SOLIDS:	47% +/- 2%
VISCOSITY:	86 to 96 KU
VOC:	88 g/L (0.7 lbs./gal.)
COVERAGE:	400 to 500 sq. ft./gal. (37 to 46 sq. m/3.78L)
Wet Film Thickness:	3.2 mils to 4.0 mils
Wet Microns:	81 to 102
Dry Film Thickness:	1.2 mils to 1.5 mils
Dry Microns:	30 to 38

Does not include variation due to application methods, surface porosity, and/or mixing.

WEIGHT/GALLON:	10.0 lbs. (4.5 kg) +/- 0.2 lbs. (91 g)

DRYING TIME: Dry time @70ºF (21ºC); 50% relative humidity

To Touch:	30 minutes
To Handle:	1 hour
To Recoat:	1 hour, 24 hours for maximum stain blocking resistance
To Full Cure:	4 hours

Drying times listed may vary depending on temperature, humidity, color, film build, and air movement.
FLASH POINT: Over 200ºF (93ºC)

FEATURES AND BENEFITS

Features	Benefits
Alkali Resistance	Can apply to fresh concrete at 7 days and/or surface less than 13 pH
Excellent Stain Blocker	Blocks water, smoke, ink, markers, & tannins
Application to 35°F (2ºC)	Longer painting season
Higher Solids	Better coverage
Efflorescence Resistance	Minimizes white crusty salt deposits
Seals & Prepares Recommended Substrates	Prevents moisture damage & prepares the surface for topcoating
Adhesion	Minimizes peeling & cracking
Excellent Application Properties	Less time for application
Mildew Resistance	Mildew/Fungus/Biological growth resistance
UV Resistance	Looks like new longer
VOC Compliant	Lower than current Federal AIM Regulations
Meets MPI Category #3, Alkali Resistant Primer	Allows additional specification opportunities

PERFORMANCE DATA

Property	Test Method	Results
Flexibility	ASTM D522B	Pass
Mildew Resistance	ASTM D3273/74	No growth
Alkali Resistance	TT-P-1511B	Passes: no efflorescence, blistering, saponification
Adhesion	ASTM D3359	Passes

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. Putty all nail holes and caulk all cracks and open seams. Sand all glossy, rough, and patched surfaces. Feather back all rough edges to sound surface by sanding. Prime all bare and porous substrates with an appropriate primer.

Clean surfaces per ASTM Standard Practice D4258-83: Standard Practice for Surface Cleaning Concrete for Coating. Vacuum cleaning, water cleaning, detergent water wash, power wash cleaning, steam cleaning, hand tool and mechanical cleaning are acceptable cleaning methods. Remove efflorescence by pressure washing or cleaning with dilute muriatic acid (following manufacturer's instruction).

Remove mildew by using PPG MILDEW CHECK® Multi-Purpose Wash, 18-1; or 1 part chlorine bleach to 3 parts water. Before use, be sure to read and follow instructions and warnings on label.

Dry substrate thoroughly to a moisture content under 12% (ASTM D4263: Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method). Clean chalky paint in good condition by sweep blasting, power washing, wire brushing, etc. to remove loose material. After cleaning, powdery or chalky, unpainted recommended substrates may be conditioned with a coat of PERMA-CRETE Exterior Acrylic Clear Masonry Surface Sealer 4-808 or Pigmented Masonry Surface Sealer 4-809.

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 priming and painting. The pH of the substrate must be less than 13 before priming with an alkali resistant primer. 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 priming and painting. The pH of the substrate must be less than 13 before priming with an alkali resistant primer.

CONCRETE/MASONRY BLOCK: Mortar should cure for at least 7 days and preferably 30 days prior to priming. Fill block with an appropriate block filler. 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 SIDING: Fiber cement board 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. Pre-primed 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.

MASONRY: New masonry should cure for at least 7 days and preferably 30 days prior to priming and painting. The pH of the substrate must be less than 13 before priming with an alkali resistant primer.

STUCCO: New stucco should cure for at least 7 days and preferably 30 days prior to priming and painting. The pH of the substrate must be less than 13 before priming with an alkali resistant primer. 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.

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TINTING AND BASE INFORMATION

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

4-603 White (Tintable)

RECOMMENDED PRIMERS

None Refer to Surface Preparation Recommendations

LIMITATIONS OF USE

Apply only when air and surface temperatures are above 35°F (2°C) or above and when the air and surface temperatures will remain above 35°F (2°C) for the next 24 hours. Avoid exterior application late in the day when dew and condensation are likely to form or when rain is anticipated. For optimum application properties, bring material to at least 50ºF (10ºC) prior to application. For maximum stain resistance, allow 4 hours before applying topcoat. PROTECT FROM FREEZING. Drying is important to stain-blocking properties; if drying conditions are poor (low temperature, high humidity), longer drying times are required to achieve stain blocking. USE WITH ADEQUATE VENTILATION. KEEP OUT OF REACH OF CHILDREN.

PACKAGING

1-Gallon (3.78L)
5-Gallon (18.9L)

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