



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 ground, 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	Fiber Cement	Tilt Up
Concrete	Masonry	Wood
Concrete Block (CMU)	Plaster	
Gypsum Wallboard-Drywall	Stucco	

CONFORMANCE STANDARDS

- ✔ VOC compliant in all regulated areas
- ✔ MPI® approval in category #3, Primer, Alkali Resistant, Water Based
- ✔ Meets MPI Green Performance Standard GPS-1

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 1/2 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 synthetic roller cover

**Thinning:** Not recommended. For maximum stain blocking properties, do not thin. May be thinned sparingly with water if needed for other applications.

FEATURES AND BENEFITS

Features

- Alkali Resistance
- Excellent Stain Blocker
- Application to 35°F (2°C)
- Higher Solids
- Efflorescence Resistance
- Seals and Prepares Recommended Substrates
- Adhesion
- Excellent Application Properties
- Mildew Resistant Coating
- UV Resistance

Benefits

- Can apply to fresh concrete at 7 days and a pH less than 13
- Blocks water, smoke, ink, markers, and tannins
- Longer painting season
- Better coverage
- Minimizes white crusty salt deposits
- Prevents moisture damage and prepares the surface for topcoating
- Minimizes peeling and cracking
- Less time for application
- Mildew and fungal growth resistance on paint film
- Looks like new longer

PERFORMANCE DATA

Property	Test Method	Results
Flexibility	ASTM D522B	Pass
Mildew Resistance	ASTM D3273/74 and D5590	No growth
Alkali Resistance	TTP-1511B	Passes: no efflorescence, blistering, saponification
Adhesion	ASTM D3359	Passes

APPLICATION INFORMATION (continued)

Permissible temperatures during application:

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

PRODUCT DATA

<b>PRODUCT TYPE:</b>	100% Acrylic
<b>BASE/COLOR:</b>	4-603 White
<b>SHEEN:</b>	Non Flat >5
<b>CLEANUP:</b>	Soap and Water
<b>VOLUME SOLIDS:</b>	37% +/- 2%
<b>WEIGHT SOLIDS:</b>	47% +/- 2%
<b>VISCOSITY:</b>	95 to 105 KU
<b>VOC:</b>	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

Coverage figures do not include loss due to surface irregularities and porosity or material loss due to application method or mixing.

**WEIGHT/GALLON:** 9.9 lbs. (4.5 kg) +/- 0.2 lbs. (91 g)

**DRYING TIME:** Dry time @ 70°F (21°C); 50% relative humidity

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

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

**FLASH POINT:** Over 200°F (93°C)

## 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) or a solution of 1 part white vinegar to 4 parts water. Rinse thoroughly and allow to dry.

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%. 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](http://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 this 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 this 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 prior to priming if a smoother uniform surface is desired. 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. 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.

**GYPHUM WALLBOARD-DRYWALL:** Nails or screws should be countersunk, and they along with any indentations should be mudded flush with the surface, sanded smooth and cleaned to remove any dust, then prime prior to painting the substrate.

**PLASTER:** Plaster, hardcoat, skim coat, or other alkaline surfaces should be allowed to 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 this 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 this 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 this 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.

**WOOD:** Unpainted wood or wood in poor condition should be sanded smooth, wiped clean, then primed. Any knots or resinous areas must be primed before painting. Countersink all nails, putty flush with surface, then prime.

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*Perma-Crete* Interior/Exterior Alkali Resistant Primer**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)

**LIMITATIONS OF USE**

Apply only when air and surface temperatures are above 35°F (2°C) and surface temperature is at least 5°F (3°C) above the dew point. Air and surface temperatures must 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 or snow is expected. For optimum application properties, bring material to at least 50°F (10°C) prior to application. Surface pH limitation is 7-13. For maximum stain resistance, allow 24 hours before applying topcoat. 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.

PROTECT FROM FREEZING

USE WITH ADEQUATE VENTILATION. KEEP OUT OF REACH OF CHILDREN.

**RECOMMENDED PRIMERS**

None Refer to Surface Preparation Recommendations

**PACKAGING**

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

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PPG Industries, Inc.  
Architectural Coatings  
One PPG Place  
Pittsburgh, PA 15272  
www.ppgpro.com

Technical Services  
1-800-441-9695  
1-888-807-5123 fax

Architect/Specifier  
1-888-PPG-IDEA

PPG Canada, Inc.  
Architectural Coatings  
4 Kenview Blvd  
Brampton, ON L6T 5E4

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