



Architectural Coatings

Perma-Crete High Build 100% Acrylic Topcoat

GENERAL DESCRIPTION

Perma-Crete High Build Acrylic Topcoat 4-22 is specifically designed for interior and exterior, above ground, masonry substrates requiring high performance protection. It is alkali and efflorescence resistant. Perma-Crete 4-22 provides resistance against water, UV light, staining and is breathable. It passes TTC-555B and ASTM D6904-3 for wind driven rain. Perma-Crete 4-22 provides a durable exterior coating and provides an option between conventional acrylics and elastomeric coatings. This Perma-Crete high build topcoat is ideal for 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	
Concrete Block (CMU)	Stucco	

APPLICATION INFORMATION

Stir thoroughly before use. Apply one or two coats as required. 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 by spray, roller, brush.
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 synthetic roller cover
Thinning: Not recommended.

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

FEATURES AND BENEFITS

Features

- Resists Wind Driven Rain
- Water Vapor Permeance
- Alkali Resistance
- High Build
- Two (2) Coat System
- Efflorescence Resistance
- Application to 35°F (2°C)
- Elongation
- Seals Concrete
- Excellent Application Properties
- Mildew Resistant Coating
- UV Resistance

Benefits

- Water resistance requires 2 pinhole free coats @ 5 mils each (10 mils total DFT)
- Breathability
- Can apply to fresh concrete at 7 days and pH less than 13
- Provides extra protection in fewer coats (2 coats)
- Turns jobs faster
- Minimizes white crusty salt deposits
- Longer painting season
- Increased flexibility over multiple substrates
- Prevents moisture damage
- Less time for application and resists pinholing
- Stays cleaner longer
- Looks like new longer

PERFORMANCE DATA

Property	Test Method	Results
Resistance to Wind Driven Rain	ASTM D6904-3	Passes water resistance 2 pinhole free coats, self-primed 4-22 @ 5 mils each (10 mils total DFT) Passes water resistance pinhole free film one coat each 4-100, 4-22 or 4-30 at recommended DFT
Elongation/Tensile Strength	ASTM D2370	240% @ 11 mils DFT / 725 psi
Flexibility	ASTM D1734	Passes cylindrical mandrel bend
Water Vapor Permeance	ASTM D1653	26 perms
Mildew Resistance	ASTM D3273/74 & D5590	No growth
Alkali Resistance	TT-P-1511B	Passes: no efflorescence, blistering, saponification

PRODUCT DATA

PRODUCT TYPE:	100% Acrylic Topcoat
BASE/COLOR:	4-22 White 4-30 Deeptone Base (must be tinted)
SHEEN:	Flat 0 to 3 (85° Gloss Meter)
CLEANUP:	Soap and Water
VOLUME SOLIDS*:	45% +/- 2%
WEIGHT SOLIDS*:	57% +/- 2%
VISCOSITY*:	100 to 110 KU
VOC*:	98 g/L (.82 lbs./gal.)

COVERAGE*: 125 to 225 sq. ft./gal. (14 to 21 sq. m/3.78L)

Wet Film Thickness:	7.1 mils to 12.8 mils
Wet Microns:	181 to 325
Dry Film Thickness:	3.2 mils to 5.8 mils
Dry Microns:	81 to 147

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

Note: If wind driven rain performance is a requirement, the product must be applied at 2 coats @ 5 mils each (10 mils total DFT).

WEIGHT/GALLON*: 11.2 lbs. (5.1 kg) +/- 0.2 lbs. (91 g)

*Product data calculated on product 4-22.

DRYING TIME:	Dry time @ 77°F (25°C); 50% relative humidity
To Touch:	1 hour
To Handle:	4 hours
To Recoat:	4 hours

Drying times listed may vary depending on temperature, humidity, film build, color, 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. Treatment of cracks and seams is required to obtain the water-resistant protection of the building and to help prevent further cracking and deterioration. Methods of treatment depend upon the size of the crack. 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 or Pigmented Bonding Coat 4-898.

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. 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 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.

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. 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 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 sealer or 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.

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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.

4-22 White
4-30 Deeptone Base

LIMITATIONS OF USE

Apply when air, surface and product temperatures are above 35°F (2°C) and surface temperature is at least 5°F (3°C) above the dew point. For optimum application properties, bring material to at least 50°F (10°C) prior to application. Air and surface temperature 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 if rain or snow is expected. Not recommended for use on surfaces demonstrating hydrostatic or high vapor pressure or for immersion service. Do not use on floors.

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. Examples of these conditions include, but are not limited to, under eaves, behind shrubbery and trees, and in areas that are consistently damp with little to no direct sunlight.

PROTECT FROM FREEZING.

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

RECOMMENDED PRIMERS

Product is self-priming in most applications, but other primers that can be used are:

Brick	4-808, 4-809, 4-898, 4-2, 4-503, 4-603
Concrete and Masonry	4-808, 4-809, 4-898, 4-2, 4-503, 4-603
Concrete Masonry Block	4-100, 4-2, 4-503, 4-603
Fiber Cement	4-503, 4-603, 4-2
Stucco	4-808, 4-809, 4-898, 4-2, 4-503, 4-603
Tilt-Up	4-808, 4-809, 4-898

PACKAGING

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

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B4.8 2/2015
(Supersedes 4/2012)

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