

Waterproof Cementitious Deck Coating System

- ☑ Vehicular and/or pedestrian traffic
- ☑ Highly abrasion resistant
- ☑ Applied above or below grade

Product Description

AQUAFIN®-PDS (in short "PDS") is a state of the art cementitious, acrylic emulsion based flexible protective coating and waterproof barrier. This product is highly abrasion resistant and two-component. Its liquid mixing component is water based (solvent free).

"PDS" is a stand-alone product. It is specifically recommended for parking structures and high traffic areas. Where desired, it can be sealed with an acrylic sealer or top-coated (painted) for uniformity of color.

Cracks, static (non moving) or dynamic (moving), can be sealed with AQUAFIN JOINT SEALING TAPE-2000 or 2000-S using "PDS" or AQUAFIN-2K/M as bonding agent.

Typical Applications

- Horizontal or vertical applications to concrete, cementitious overlays and masonry by notched squeegee or trowel
- Above or below grade.
- Parking Decks ■ Balconies ■ Walkways ■ Pedestrian Overpasses ■ Stadiums.

Advantages

- Breathable (not a vapor barrier)
- Solvent free - Environmentally friendly
- Applied to moist/damp substrates
- Resists high abrasion, mechanical wear & deicing salts
- Skid resistant underfoot
- UV resistant ■ Economic costs.

Preparation of Substrate

The substrate must be sound, clean, and free from voids, gaping cracks or ridges and open pored (like fine sand paper) and minimum ICRI CSP-3 profile.

1. Remove bond breakers, such as oil, grease, dirt, loose particles, remains of form oils, water repellents, rust or other coatings by steel shot blasting, or wet or dry sandblasting or other suitable mechanical means.
2. Repair holes, defects, irregular surfaces, weak mortar joints with MORTAR-LN or MORTAR-40.
3. Pre-water substrate with clean water to saturated surface dry (SSD) condition, with no standing surface water.

Mixing

NOTE: Do NOT add water to AQUAFIN-PDS.

Mixing ratio by weight:

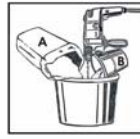
Brush/Spray: 4 parts powder to 1 part liquid (4:1).

Trowel: 4.5 parts powder to 1 part liquid (4½:1).

1. Pour approx. 80% liquid Component-B into a clean container, gradually add all "PDS" powder Component-A and stir to a lump free consistency for 2 - 3 minutes using a suitable paddle mixer with 500 - 700 rpm.

2. While mixing, add part or all of the remaining liquid until the required slurry consistency is obtained.

Note: For troweling use approx. 90% of the liquid and all of the powder, or use 100% liquid and add approx. 4 lb (1.8 kg) additional powder.



Application

NOTE:

- Do not apply "PDS" at temperatures below 50°F (10°C) or to frozen substrates.
- At high temperatures, i.e. 86°F (30°C) and above, protect application from direct sun and wind to prevent premature surface drying and shrinkage cracks. Apply material in 2 (two) coats minimum.
- Do not pre-dampen application tools with water (i.e. roller, scrub brush, broom).

Cracks and joints:

Seal cracks up to 1/16" (1.5 mm) with JOINT SEALING TAPE-2000 or 2000-S. Honor all expansion joints.

RETARDER:

Add and mix 1 package AQUAFIN-PDS Retarder to liquid Component-B in dry climatic conditions associated with high evaporation rates which can decrease "PDS" working time.

I. STANDARD APPLICATION & Drive Lanes:

Apply "PDS" at total 60 mils (appx. 1/16" [1.6 mm]) thickness as follows:

1st coat (30 mils) [0.8 mm]: (210 ft²/Unit (19.2 m²))

1. Pour mixed "PDS" slurry in sufficient quantity over prepared and pre-dampened concrete substrate.
2. Spread "PDS" slurry to a uniform thickness using a 1/4" (6 mm) notched squeegee.
3. Scrub "PDS" slurry into the substrate to assure proper adhesion, using a scrub brush or broom.
4. Back-roll "PDS" slurry to uniform thickness using an 18" (45 cm) wide, 3/8" (10 mm) non-shed roller. Back-roll first in one direction, then repeat operation at a 90° angle.

2nd coat (30 mils) [0.8 mm]: (210 ft²/Unit (19.2 m²))

1. Pour mixed "PDS" slurry in sections over dry, sufficiently hardened 1st coat or wait until next day.
2. Starting at a cross-angle to the first coat, spread and roll "PDS" slurry to a uniform thickness and appearance using an 18" (45 cm) wide, 3/8" (10 mm) non-shed roller. Roll first in one direction, then repeat operation at a 90° angle.

II. TURN LANES and RAMPS:

Apply "PDS" as described above at total 90 mils (2.4 mm) thickness. Apply in two coats of 45 mils (1.2 mm) each, or three coats of 30 mils (0.8 mm) each, depending on environmental circumstances.

Apply the second coat (or multiple coats) as soon as the first coat has sufficiently hardened or wait until next day.

III. SURFACE FINISHES:

1. Surface can be left with rolled texture, brushed, smooth troweled, or sprayed with Hopper Gun or similar spray method (1/4" (6.4 mm) tip size, 10-15 psi low pressure) depending on type of application and project specifications.
2. Option I for more uniform color: Apply 2 coats (dip and roll, or airless spray) AQUAFIN approved acrylic color coat over approx. 24 hr cured "PDS".

Physical & Technical Data

AQUAFIN-PDS: wet mix

VOC Content:	0 g/L (0 lb/gal)
Density of wet mix:	~125 lb/ft ³ [-16.6 lb/gal] (~2.0 kg/dm ³)
Pot life at 60% RH:	~ 60 minutes at 68° F (20° C) ~ 30 minutes at 95° F (35° C)

AQUAFIN-PDS: hardened

Color:	Light gray
Shore A hardness:	~ 85
Compressive Strength: (ASTM C-109)	~ 6,500 psi (~45 Mpa) @ 28d
Flexural Strength: (ASTM C- 348 modified)	~ 2,000 psi (~14 Mpa) @ 28d
Adhesion to concrete: (ASTM C-297 modified)	~ 145 psi (1.0 MPa) @ 28d
Permeability: (DIN 1048) at 80 mils (2 mm) thickness)	No measurable leakage up to 146 feet (50 m) head pressure (positive side).
Flammability: (ASTM E-108)	Class A, Spread of Flame - Passed

All data are averages of several tests under laboratory conditions. In practice, climatic variations such as temperature, humidity, and porosity of substrate may affect these values.

3. Option II: Roll or spray with Hudson-type sprayer 1 or 2 coats of clear acrylic sealer AQUAFIN-CS/250 over sufficiently hardened "PDS". Apply 2 coats for high traffic areas and/or stain resistance. Application rate: 300 - 400 SF/gal per coat.

EXPOSURE^{*)} OF APPLICATION TO:

- ◆ vehicular and pedestrian traffic after 1 - 3 days (depending on temperature and humidity).
 - ◆ rain, horizontal surfaces, minimum 6 hrs.
- *) at 68°F (20°C) and 60% humidity.

CLEAN UP:

Clean tools and equipment with water immediately after use. Cured material can only be removed mechanically.

CURING:

1. Self curing under normal conditions. Do not use water. It may discolor coating during the setting time.
2. Protect freshly applied coating from direct sunlight.

PACKAGING:

62.7 lb (28.5 kg) unit consists of:

- a. POWDER Component-A: 50.0 lb (22.7 kg) bag.
- b. LIQUID Component-B: 1.5 gal (5.7 L) pail.

YIELD of 62.7 lb (28.5 kg) unit:

Approx. 105 ft² at 60 mils (9.6 m² at 1.5 mm)

Approx. 67 ft² at 90 mils (6.3 m² at 2.4 mm).

Note: Environmental and substrate conditions, as well as material waste, may affect the values listed above. Applicator is responsible for actual usage rates.

SHELF LIFE:

Approx. 12 months for powder Component-A and approx. 24 months for liquid Component-B in unopened packaging stored in a dry, frost free place.

LIMITATIONS:

1. Do not use in contact with alkali sensitive metals, such as copper, aluminum, galvanized or zinc treated metal. Protect and seal metal first with a primer (i.e. KRYLON Primer, or equal).
2. Dynamic (active) cracks in concrete may reflect through "PDS".
3. Non color coated applications: Uniformity of color can not be guaranteed due to natural variations with

Portland cement based products.

4. Discoloration or efflorescence may occur on non-sealed surfaces due to migrating or standing water.

MAINTENANCE & CLEANING:

1. Mechanically damaged "PDS" can be easily repaired by thoroughly cleaning the surface and reapplying a new coat of "PDS".
2. Test compatibility of foreseen cleaning solutions and

Safety

techniques on a small area prior to cleaning the entire "PDS" surface.

Refer to MSDS. For commercial use only. Component-A (powder) contains sand (crystalline silica) and Portland cement and is highly alkaline. The use of rubber gloves and goggles during mixing and application is recommended. Avoid contact with eyes and skin. After contact with skin, wash with plenty of water. In case of eye contact, rinse immediately with plenty of water and seek medical advice. In case of handling large quantities, provide good ventilation if indoors.

KEEP OUT OF REACH OF CHILDREN

Note: Installer is responsible for proper product application. Site visits by Aquafin personnel or representatives are solely for the purpose of making technical recommendations, not for providing supervision or quality control.

LIMITED WARRANTY: AQUAFIN, INC. warrants its products to be manufactured free of defects and to be consistent with its standard high quality. We will replace or, at our election, refund the purchase price of, any product which is proven to be defective, provided that the product was properly applied. Our product recommendations are based on Industry Standards and testing procedures. We assume no warranties either written, expressed or implied as to any specific methods of application or use of the product. AQUAFIN, INC. MAKES NO WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED. AQUAFIN, INC. shall not be liable for damages of any sort including remote or consequential damages, down time, or delay.

(Up-date 09/23/08)



AQUAFIN, Inc.

505 Blue Ball Road, # 160 Elkton, MD 21921
Phone (410) 392-2300 Fax (410) 392-2324
TOLL FREE 1 - 866 - AQUAFIN (1-866-278-2346)

DISTRIBUTED BY:

E-mail: info@aquafin.net
<http://www.aquafin.us>
CHECK WEBSITE FOR LATEST UP-DATES