

DECORFLEX®-HD

Heavy duty base & wearing coat of the DECORFLEX Decorative Coating System

- Waterproof and flexible
- Resists pedestrian and vehicular traffic
- Can be used as a stand-alone finish
- Environmentally friendly
- Breathable (not a vapor barrier)
- Applied to moist/damp substrates
- Slip resistant finish - exceeds ADA standards

CSI Div. 07 + 09

07 16 14 Acrylic Modified (Flexible) Cementitious Waterproofing
09 97 32 Concrete and Masonry Coatings

LEED Points

MR Credit 5.1, Regional Materials.....Up 2 Points
IEQ Credit 4.2, Low-Emitting Materials
Paints and Coatings.....1 Point
Using this AQUAFIN product can help contribute to LEED certification of projects in the categories shown above.

Product Description

DECORFLEX-HD is the heavy duty base coat of the DECORFLEX System - a multi-layered, cementitious, acrylic emulsion based flexible decorative coating and waterproofing system. It is suitable for both interior and exterior applications, and can be applied over many different substrates to provide a decorative, protective coating. In combination with the system components, DECORFLEX-HD can be used to achieve a wide range of finishes, such as stenciling, engraving, knock down or splatter, to give the appearance of stone, stucco, tile, brick, etc. As a stand-alone finish the DECORFLEX-HD can be used to coat parking garages and other similar applications as it withstands vehicular traffic.

Typical Applications

- Interior or exterior
- Horizontal or vertical applications to concrete, cementitious overlays, masonry, brick, parging (render), CBU's (cement backer units), gypsum board (drywall), glass mat faced gypsum sheathing, steel, PVC, mastic asphalt (interior), roughened polystyrol, properly prepared existing cementitious terrazzo floors, ceramic, porcelain and quarry tiles
- Balconies, plaza decks, stadiums, stairs
- Pool decks and other surrounding areas
- Retail spaces, restaurants, lobbies and other public areas
- Faux finishes for interior & exterior surfaces resembling travertine, granite, Venetian plaster, etc
- Parking garages, turn lanes, driveways, helicopter landing pads
- Custom designs with stencils, engravings, pre-fabricated inlays, etc

Advantages

- Waterproofing & crack-isolation membrane
- Withstands pedestrian & vehicular traffic

- Solvent free, non-flammable, low odor, no fumes
- Zero VOC, contributes to LEED
- No priming necessary in most cases
- Breathable (not a vapor barrier)
- Applied to moist/damp substrates
- Resists abrasion, mechanical wear & deicing salts
- Resists strong positive side hydrostatic pressure
- Compliant with Class A fire safety ratings
- UV, weather & freeze/thaw resistant
- Superior adhesion to many substrates
- Permanently flexible - Self curing
- Does not support the growth of mold & mildew

Physical and Technical Data

Dry Powder - Component A

Aggregate State: Powder (asbestos free)
Colors: standard Gray, White & Base White
VOC Content: 0% (0 g/L)

Liquid - Component B

Aggregate State: Liquid
Color: White
Density at 68°F (20°C): ~8.74 lb/gal (~1.05 kg/L)
pH-value: 7.5
VOC Content: 0% (0 g/L)

DECORFLEX-HD - Wet Mix

Standard Color: Gray & Base White
Pigments: Several colors (see color chart)
Pot life (approximate): 60 min. at 73° F (23° C) 60% RH
20 min. at 95° F (35° C) 65% RH
Application Temperature: 40° F to 95° F (+5° C to +35° C)
VOC Content: 0% (0 g/L) for standard colors

DECORFLEX-HD - Fully Cured

Color: Gray or Pigmented
Elongation: 23% @ 1/8" (3 mm),
(ASTM D-412 w/o mesh) 50% @ 160 mils (4mm), 2 coats
Crack Bridging Capacity: 1/16" (1.6 mm) at 80 mils DFT
Tensile Strength: 600 psi (4.2 MPa) @ 80 mils
(ASTM D-412-98a) (2 mm) thickness at 73° F (23° C)
Adhesion to concrete: 145 psi (1.0 MPa) @ 7 d
(ASTM C-297 modified) 215 psi (1.5 MPa) @ 28 d
Abrasion Resistance: 109 mg/1000 cycles, CS-17 wheel
(ASTM D-4060) (Taber 5150 Abrader)
Rapid Chloride Permeability Chloride Penetration:
• Untreated control: 3750 Coulombs
• 80 mils (2 mm) thickness: 509 Coulombs
Percentage Reduction: 86% (ASTM C-1202.97)
Flammability: Passed -
(ASTM E-108) Class A, Spread of Flame

Vapor Permeability	(ASTM E-96)
• 1/8" (3.0 mm) film:	2.1 Perms (16%)
• Untreated control:	13.1 Perms (100%)
Non-Skid Finish	DECORFLEX-HD with Sealer-AC
ASTM C 1028	Wet: 0.94, Dry: 1.35
Water Permeability:	No measurable leakage up to 200
(CRD-C 48-92 at 60 mils	psi (460 feet (140 m)) head
(1.6 mm) thickness)	pressure (positive side).
Root Resistance:	No punctures, tested with Lupinus
(EMPA test)	albus

Substrate Preparation

The substrate must be sound, clean, open pored, and free from voids, gaping cracks or ridges and open pored (like fine sand paper). Remove bond breakers, such as oil, grease, dirt, loose particles, remains of form oils, water repellents, rust or other coatings by high pressure waterblasting or wet or dry sandblasting, diamond cup grinding, etc. Pay particular attention to sufficiently roughen slab and wall substrates to ICRI CSP 3 to 5 profile. Use mechanical means to prevent DECORFLEX from de-bonding!

Repair holes, defects, irregular surfaces, weak mortar joints, etc. with MORTAR-40 or MORTAR-LN.

Round edges at vertical external joints. Close large open pores and joint recesses of CMU blocks and joint unevenness in brick walls with sand/cement mortar or DECORFLEX-SK. "Sack" (close) bug holes with DECORFLEX-SK. Pre-water substrate (excluding drywall or similar) with clean water to saturated surface dry (SSD) condition, with no standing surface water.

Seal dry, dusty or very absorptive surfaces (i.e. light weight concrete, drywall, gypsum, plywood) with DECORFLEX liquid Component-B, diluted with water 1:4 to 1:5.

Alkali sensitive substrates:

Protect and seal alkali sensitive metal substrates such as copper, aluminum, galvanized or zinc treated metal first with a primer (i.e. KRYLON Primer, or equal) prior to applying (over-coating) DECORFLEX.

NOTE: Do not apply DECORFLEX-HD at temperatures below 40°F (5°C) or to frozen substrates. Can be applied to 3 day old concrete at >86°F (>30°C) temperature and 5 day old at 60-70°F (15-21°C), or when concrete reaches minimum 2,000 psi. At high air 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 - 3 coats depending on desired finish and environmental conditions. Use DECORFLEX-SK as 1st coat where negative side pressure from ground or rain water can be expected. Do NOT directly apply DECORFLEX over AQUAFIN-IC or similar crystalline waterproofing products.

Mixing Instructions

Delivered in a pre-determined mix ratio, mix Component-A with Component-B completely. Do not mix partial units.

A. Pour 2/3 liquid Component-B into a clean container, add powder (Comp-A) and stir to a lump free creamy consistency. Add remaining 1/3 liquid and mix total 2 - 3 minutes with a strong, slow speed (300 rpm) mechanical mixer.

B. Pigmenting: Add and mix liquid pigments to liquid Component-B or powder pigments to powder Component-A prior to mixing Component-A with Component-B.

NOTE: Up to 1 quart (1 L) water can be added to a unit after initial mixing to adjust application consistency.

Application

DECORFLEX is applied using a combination of tools, including our custom tools as well as commercially available products. Clean tools and equipment with water immediately after use.

Consumption:

~130 ft² @ 1/16" (12.0 m² @ 1.5 mm) per unit

~65 ft² @ 1/8" (6.0 m² @ 3.0 mm) per unit

~30 ft² @ 1/4" (2.8 m² @ 6.4 mm) per unit

Exposure**) of Application:

1. Rain, vertical surfaces, after approx. 3 hrs.
 2. Rain, horizontal surfaces, minimum 6 hrs.
 3. Foot traffic after approx. 1 day.
 4. Car traffic between 3 - 7 days.
 5. Hydrostatic pressure between 3 - 7 days
- ***) at 68°F (20°C) and 60% humidity.

Curing

- Self curing under normal conditions. Do not use water. It may discolor pigmented applications during the fresh stage. However, provide suitable protection against extreme weather conditions while setting.
- In hot and very dry climates coating may become slightly tacky/sticky during the curing process.
- Expect prolonged setting and hardening time in rooms with high humidity, poorly ventilated areas and corners. The use of fans will accelerate the setting and curing time.

Sealing/Protecting DECORFLEX Surfaces:

In areas such as pool decks, walkways, balconies, parking decks, drive lanes, etc. where higher than usual surface contamination can be expected, seal DECORFLEX with clear acrylic sealer SEALER-AC. The DECORFLEX surface should be cured for at least 1 day before sealing.

Clean Up

Clean tools and equipment with water immediately after use. Cured material can only be removed mechanically or with a soy based paint remover.

Packaging:

DECORFLEX-HD is packaged as follows:

- 77 lb (35 kg) bag + pail unit (A + B):

A-Component (powder): 55 lb (25 kg) bag

B-Component (liquid): 2.5 gal/22 lb pail (9.5 L/10 kg).

Shelf Life & Storage

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

Miscellaneous:

1. Do not expose the application to water during the setting time.
2. Expect prolonged setting and hardening time in rooms with high humidity, poorly ventilated areas and corners. The use of fans will accelerate the setting and curing time.
3. If application is exposed to intense sunlight work against movement of sun.
4. Cured DECORFLEX-HD is physiologically and ecologically safe.
5. Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

Limitations

- Do not use as an adhesive to install ceramic tile or natural stone.
- Do not use in lieu of a roofing membrane over occupied space in climates prone to freeze/thaw movement, or decks without properly placed movement or expansion joints (Contact AQUAFIN).
- Negative water pressure, if exposed to freezing, such as in above grade perimeter or parapet walls, can create spalling of the application or the exposed wall face.

Maintenance

Mechanically damaged DECORFLEX can be easily repaired by thoroughly cleaning (sanding) the surface and reapplying a new coat of DECORFLEX.

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.

Safety & Handling

Refer to MSDS. A-Component (powder) contains sand (crystalline silica) and Portland cement and is highly alkaline (irritant) in contact with water. Prevent inhalation of dust before and during mixing with liquid Component-B. B-Component (liquid) contains no hazardous materials. Use rubber gloves and goggles during mixing and application. 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: the DECORFLEX Decorative Coating System is only available to applicators that have completed the applicator training classes. Please contact AQUAFIN for information regarding training costs and dates.

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.