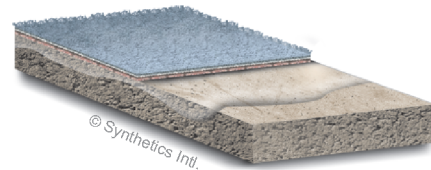




Synthetic30fs™



Synthetic30fs optimizes vapor control with the latest fast curing technology.

Synthetic30fs is a two-component waterborne system designed to penetrate concrete slabs (including portland based terrazzo) to reduce concrete floor dampness. The special resins allow excellent penetration into freshly poured and aged concrete substrates with excessive water vapor emission, alkalinity migration and 100% relative humidity transfer which fail to meet flooring manufactures moisture tolerances. The product may also be used as a moisture tolerant clear floor finish on substrate where traditional coating system may be damaged by long term moisture exposure.

Synthetic30fs is easy to mix, simple to apply and offers one of the fast curing rates at just 2 - 4 hours. This allows the product to penetrate, quickly form a moisture resistant film property and prepare the surface for flooring installations on fast track projects.

Synthetic30fs application improves the adhesion of all flooring systems, floor patching products, primers and coatings when compared to untreated surfaces with long term (ongoing) moisture exposure. Synthetic30fs may be installed under all flooring systems and is warranted by Synthetics International regardless of the flooring product manufacturer.

ADVANTAGES/ BENEFITS

- Synthetic30fs may be applied to concrete previously sealed with a **silicate** hardener, bond breaker and surface sealer.
- Compatible with epoxy, cement patching products and urethanes
- One product for treating vapor emission, alkalinity and relative humidity
- Excellent mixed pot life, up to 5 times longer than competing products
- Seals cracks, joints and concrete imperfections
- Restricts up to 100% RH readings per ASTM F2170
- Allows treatment of newly poured concrete within 24 hours
- Restricts up to 95% vapor emission per ASTM E96
- Allows direct adhesion of epoxy and urethane products for 48 hours
- Un-affected by long term alkalinity exposure (14pH) per ASTM D1308
- Lowers vapor emission rate to approx. 1.0 pound per ASTM F1869

GREEN ATTRIBUTES

Synthetic30's state of the art, waterborne chemistry compliments the green product movement. It is low-emitting, which reduces indoor air contaminants that are odorous and irritating and/or harmful to the comfort and well being of installers and occupants.

Synthetic30 offers applicators the opportunity to clean tools and equipment with water. Using a damp towel will remove the product from wood, metal, glass and adjacent surfaces. When the product cures, mechanical removal is required. Solvents and other chemicals are not effective in removing dried product after the product hardens.

LABORATORY TESTING

ASTM E96 Water Vapor Transmission Rate - WRT

	<u>Synthetic30</u>	<u>Control</u>
Pounds/1000 ft²/ 24 hrs.	2.0	42.4
Grams/h·m²	0.4	8.6

ASTM E96 Water Vapor Permeance - WVP

	<u>Synthetic30</u>	<u>Control</u>
Grams/Pa·s·m² × 10⁸	8.1	172.8
Nanograms/ Pa·s·m²	81.1	1728.2

ASTM D4541 Pull-off Concrete Adhesion

- Core#1 - 275psi (100% concrete cohesive failure)
- Core#2 - 225psi (100% concrete cohesive failure)
- Core#3 - 375psi (100% concrete cohesive failure)
- Core#4 - 325psi (100% concrete cohesive failure)
- Core#5 - 350psi (100% concrete cohesive failure)

ASTM D1308 Alkali Resistance-30 Day Exposure

- Alkali of 14pH - 100% Resistant to exposure
- 35% Potassium Hydroxide - 100% Resistant to exposure

EPA Method 24 Volatile Organic Compound (VOC)

Mixed Product VOC: less than 99 g/liter

Indoor Air Quality Contributions

- LEED New Construction & Major Renovations, Ver 2.2
- EQ Credit 4.2: Low-Emitting Materials: Coatings
- LEED Schools for New Construction and Major Ren.
- EQ Credit 4: Low-Emitting Materials

Laboratory testing results available upon request.



Synthetics Intl.
Concrete Moisture Specialists

866.646.0356 | www.SyntheticsIntl.com

CONCRETE PREPARATION

Freshly poured concrete must cure for 48 hours and aged concrete must be structurally sound, clean, free of dust, grease, oil, existing coatings, paint marks, carbonated layers and other potential contaminants. The concrete surface must be heavily profiled by shot-blasting to expose a CSP#3 - 5 (#390-#420 shot) profile. Profile concrete near wall base using a aggressive diamond cup wheel. Clean cracks and joints using a V-grooving bladed to expose clean concrete and remove any and all filler materials. Acid etching, sanding discs or grinding surfaces will not create an acceptable profile. Vacuum the entire surface clean. Do not use clean sweep agents. Surface must be completely clean.

MIXING

Read all mixing data prior to use. Do not mix partial units. Pre-mix the Synthetic30fs Part B unit separately using a "Jiffy" paddle at a low speed for 2 minutes. Separately mix Part A for 2 minutes. Slowly add the entire contents of Part A to the Part B container. Mix using a "Jiffy" paddle and a low speed (50 to 400 rpm) drill for 5 minutes, scrap the sides of the container with the paddle blades at least once. Allow product to sit for 30 minutes. After 30 minutes, stir product for 30 seconds and its ready for use.

- Pot Life: 2 hrs. @ 75 degrees
- Adhesives containing latex and acrylic components will require longer tack times
- Product may be applied to a solid, clean gypsum substrate after 10 days of cure
- Thicker application rates or cold temperatures may require longer cure times

PRODUCT APPLICATION

- When surface temperatures exceed 80 °F, pre-dampen concrete with clean water using an airless sprayer to cool surface
- Allow the surface to completely dry, broom areas that puddle
- Pour product on concrete drag with a squeegee, roller and/or nylon broom
- Surface may be walked on during application wearing spike shoes
- Spread evenly over the entire surface following specified spread rates
- Use fans to increase air movement after the application process
- Cement patching-leveling products may be applied after Synthetic30
- Verify curing temperatures and humidity levels to allow proper drying
- Typical curing times @ 75 °F - 30% RH with proper ventilation:

Latex/Acrylic Adhesives: 6 hrs.

Light Foot Traffic: 5 hours.

Epoxy & Urethane Products: 24 - 72 hrs.

Non-Porous Primer: min. 4 hrs.

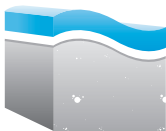
SPREAD RATES / COVERAGE

0.0 to 7.0 pounds & RH 92%.....1 coat @ 250 ft²/ gallon/ coat
7.1 to 11.0 pounds & RH 100%.....2 coats @ 250 ft²/ gallon/ per coat
11.1 to 30 pounds & RH 100%.....3 coats @ 250 ft²/ gallon/ per coat

Approximate vapor emission rate after application: 1.0 to 2.5 lbs. per ASTM F1869. Coverage rates may vary based on concrete profile, cracks and porosity. Product is resistant to 14pH for all spread rates. Two-coat application is recommend for projects where excessive cracking or damaged under slab vapor barrier are unknown.

CRACK & JOINT TREATMENT

Cracks and joints that are less than 1/8 inch wide may be sealed with Synthetic30 during application using a two coat application method. Larger areas may be treated with a 100% solids joint filler for greater crack bridging properties. On site field conditions may vary, please use products and methods required to achieve a moisture resistant seal.



Synthetics Intl.
Concrete Moisture Specialists



CEMENT PATCHING/ LEVELING

Allow Synthetic30 product to fully cure to a tack free surface for a minimum of 2 hours (85°F - 30%RH) - 4 hours (75°F - 40%RH) followed immediately by a non-porous primer and desired moisture resistant portland cement-based product. A non-porous primer must be used to secure cement products. Do not use cement products with special additives as a replacement for a non-porous primer. Follow flooring manufacturer recommendations for cement thickness and drying requirements when used over a non-porous moisture treatment. If no printed data is available, apply cement products at a minimum of 1/4" thickness and allow product to dry for 24 hours (75°F).

LIMITATIONS

Do not apply to a concrete surface when temperatures are expected to fall below 45°F (7.2°C) during and 24 hours after application. Do not apply if the interior building spaces may be affected by rain, snow or dew point is expected prior to, during and after 24 hours of application. The concrete surface requires a shot-blasted profile and rough texture to allow maximum product penetration. Perform adhesion testing on non-approved adhesives, cement patching compounds and coatings.

DISTRIBUTION

Synthetics International manufactures and remains the exclusive distributor of its products worldwide.

CLEAN UP / SAFETY

In all cases, consult the Material Safety Data Sheet before use. Wear protective gloves and promote ventilation during product use. Clean equipment, drips and over-sprays with water while still wet. Dried product requires mechanical abrasion for removal.

PACKAGING/ SHELF LIFE

Shipped in 2 and 5 gallon Part A and Part B kits. Do not mix partial units. Shelf life is 12 months. Do not allow to freeze.

VOLATILE ORGANIC COMPOUND - (VOC'S)

Complies with VOC restrictions in all regions and LEED compliance. Actual Mixed VOC = less than 99g/L

LIMITED WARRANTY

Synthetics International warrants its products for the lifetime of the originally installed flooring system or fifteen (15) years for concrete moisture vapor emission, alkalinity and relative humidity reduction as shown in printed literature. Installation instructions must be strictly followed. If product fails due to moisture vapor emission, alkalinity and relative humidity within said period, Synthetics International shall provide the labor and materials to replace the failed and/or defective Synthetics International product and/or damaged flooring system with the same or a comparable product(s) at manufactures discretion. The sole and exclusive remedy due to a breach of this warranty shall be expressly limited to the repair of the defective areas due to the failure of Synthetics International products, and shall expressly exclude consequential damages including, but not limited to damages to the structure or to the contents of the structure. See official warranty certificate for all details.

Toll Free: 866.646.0356

www.SyntheticsIntl.com

Released 8.2011