

SELECTION & SPECIFICATION DATA

Generic Type	Semi-self leveling moisture vapor reduction coating
Description	An aggregate filled polyurethane moisture control system that develops cure strength approximately 2 times that of the concrete base to which it is applied. The monolithic topping exhibits excellent physical and mechanical strength as well as moisture vapor reduction.
Features	<ul style="list-style-type: none"> • Contributes toward satisfying credit for low emitting material under LEED 4.1 • Meets California Department of Public Health CDPH/EHLB Standard Method Version 1.2 2017. Compliance Certificates Available Upon Request • Meets SCAQMD Rule 1113 for VOC content • Water/Vapor Proofing • Fast Setting • VOC Compliant • Reduces water from 10 lbs./1000 ft² to < 3lbs • Allows for over coating with epoxies & other polymers • Non-porous • Bonds to concrete pH 7-14 • Semi-Self leveling
Color	Medium Grey
Primer	<p>Vapor-Stop should only be applied over properly prepared bare concrete or a previous layer of Vapor-Stop. Applying over any other previous coatings could result in a loss of adhesion.</p> <p>Vapor-Stop should be used in place of traditional epoxy and vinyl ester based primers when used as part of a system that will be installed over concrete with high moisture levels.</p>
Dry Film Thickness	<p>10 - 15 mils (254 - 381 microns) vertical applications, per coat 20 - 60 mils (508 - 1524 microns) horizontal applications</p> <p>Required thickness depends on conditions. Consult Dudick for recommendations.</p>
Coverage Rate	<p>Horizontal Applications: 50-70 ft² @ 60 mils (1524 microns) 150-210 ft² @ 20 mils (500 microns)</p> <p>Vertical Applications: 200-300 ft² @ 10-15 mils (254-381 microns)</p> <p>Quantities shown are for estimating purposes only. Actual field usage may vary depending upon skill of the applicator. Texture and profile of the substrate will greatly impact the coverage rates.</p>
VOC Values	As Supplied : 35 g/L
Topcoats	<ul style="list-style-type: none"> • Topcoat selection will depend on exposure. • Vapor Stop can often replace the primer within the selected system, if needed topcoat with Primer 67C or 27C, for holiday testing and Primer 67SD before applying static dissipative systems. <p>Contact a Dudick representative or Carboline Technical Service for recommendations.</p>

Vapor Stop

PRODUCT DATA SHEET



SUBSTRATES & SURFACE PREPARATION

Concrete

- Concrete must be prepared mechanically to remove surface laitance. Oils, grease or other contaminant must be removed prior to surface preparation.
- Concrete must free of curing compounds and form release agents.
- Abrade the surface to achieve an ICRI CSP 3-4 surface profile.
- The prepared surface should have a nominal tensile strength of 250 psi (1.7 MPa) per ASTM D-7234.
- All expansion joints must be honored. These can be saw cut and filled with a flexible filler such as Carboseal Flex-Joint, after application of Vapor Stop.
- Anchor grooves or keyed joints must be cut at all drains, transitions, and terminations. These must be cut at least 1/8" (3 mm) wide and 1/8" (3 mm) deep.
- Filled joints and cracks in the concrete may be coated, but if movement occurs the coating can crack with the movement of the concrete.

PERFORMANCE DATA (TYPICAL VALUES)

Test Method	Results
Coefficient of Thermal Expansion ASTM C-531	2.2 x 10 ⁻⁵
Comprehensive Strength ASTM C-579	6,800 psi (47 MPa)
Density	125 lbs. / ft ³ (2002 kgs / m ³)
Flexural Strength ASTM C-580	2,600 psi (18 MPa)
Modulus of Elasticity ASTM C-580	2.2 x 10 ¹¹ psi
Taber Abrasion ASTM D-4060	70 mg
Tensile Bond Strength ASTM D-7234	Cohesive Strength of Concrete*
Tensile Strength ASTM C-307	1,050 psi (7 MPa)

*Scored sample

MIXING & THINNING

Mixing

Component A should be thoroughly mixed to re-disperse any pigments or fillers that may have settled prior to adding Component B. Mix the pre-measured Component A thoroughly. Add the pre-measured Component B and mix for one minute. Slowly add the aggregate and continue mixing until all of the aggregate has been totally wetted. When deciding on mixing equipment, keep in mind that Vapor-Stop has a 20-minute working time at 70°F (21°C).

DO NOT REDUCE AGGREGATE. DO NOT MIX PARTIAL KITS.

Pot Life

35 minutes @ 50°F (10°C)
20 minutes @ 70°F (21°C)
<10 minutes @ 90°F (32°C)

APPLICATION PROCEDURES

Application	<p>Horizontal: Pour the mixed material and spread evenly to the recommended thickness. After spreading the material, roll with a spike roller to level and de-aerate. Vapor-Stop can be lightly broadcast using a Broadcast Sand (20-40 mesh silica sand) to enhance intercoat adhesion in certain conditions. Allow to cure 24 hours before topcoating.</p> <p>Timing of batches is important so as to avoid cold joints in the floor.</p>
	<p>Vertical: Roller apply at 10-15 mils / 250-375 microns (100-150 ft² per gallon). Three coats @ 10-15 mils (250-375 microns) per coat is recommended. Can be re-coated after 3 hours at 70°F (21°C); longer at cooler temperature. When applying multiple coats, exceeding 15 mils per coat can cause blisters, cracking and sagging.</p>

APPLICATION CONDITIONS

Condition	Surface	Humidity
Minimum	41°F (5°C)	0%
Maximum	90°F (32°C)	90%

Substrate temperature must be 5°F (3°C) above the Dew Point.

Application of Vapor-Stop in direct sunlight may lead to blistering, pinholes, or wrinkling due to outgassing of air in the concrete and high substrate temperatures. Shading or evening application may be required. Consult a Dudick representative.

CURING SCHEDULE

Surface Temp.	Cure Time
50°F (10°C)	12 Hours
70°F (21°C)	8 Hours
90°F (32°C)	5 Hours

Do not attempt to store mixed material. Residual material should be properly disposed of at the end of each work period.

Recoat Time: Depending on temperature Vapor-Stop must be cured for 24 hours before being over coated with a product other than Vapor-Stop. Minimum recoat over itself is 3 hours @ 70°F (21°C). On vertical applications must be cured a minimum 3 hours @ 70°F (21°C) before another 10-15 mil (250-375 microns) coat of Vapor-Stop is applied. If the material is applied neat, then it must be abraded prior to recoating.

TESTING / CERTIFICATION / LISTING

General	Dudick flooring systems can be built to meet or exceed the requirements of Static or Dynamic Coefficient of Friction testing per installation to meet static coefficient of friction requirements for ANSI B101.1 of >0.6 and dynamic coefficient of friction (DCOF)* – Wet ANSI A326.3 of >0.42.
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CLEANUP & SAFETY

Cleanup | Use S-10 Cleaning Solvent, MEK or Acetone to clean tools and equipment.

Safety | Read and follow all caution statements on this product data sheet and on the SDS. Employ normal safety precautions. Keep container closed when not in use.

PACKAGING, HANDLING & STORAGE

Packaging	Part A: 8.75 lbs. (4 kg) Part B: 8 lbs. (3.6 kg) Aggregate: 12.75 lbs.(5.8 kg)
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PACKAGING, HANDLING & STORAGE

Shelf Life	12 months at 50°F-75°F (10°C-24°C)
	When stored in their original, unopened containers. Storage in direct sunlight or excessive heat will reduce working time and shelf life.
Storage	Store all products in a cool, dry area away from open flames, sparks or other hazards.
	Warning: All Dudick products classified by DOT with either white, yellow or red labels must not be mixed or stored together as an explosive reaction may occur.

WARRANTY

To the best of our knowledge the technical data contained herein is true and accurate on the date of publication and is subject to change without prior notice. User must contact Carboline Company to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance, injuries or damages resulting from use. Carbolines sole obligation, if any, is to replace or refund the purchase price of the Carboline product(s) proven to be defective, at Carbolines option. Carboline shall not be liable for any loss or damage. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY CARBOLINE, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. All of the trademarks referenced above are the property of Carboline International Corporation unless otherwise indicated.