



DUDICK, INC.

Corporate Offices
1818 Miller Parkway
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STERI-FLAKE

**SOLVENT FREE, LIGHT-MEDIUM
TRAFFIC, DECORATIVE ACRYLIC
FLAKE FILLED FLOOR SYSTEM**

GREEN BUILDING FEATURES

*** Steri-Flake contributes toward satisfying credit MR 4, 5 and EQ 4.2 under LEED.**

Low emitting material
No volatile organic compounds
Low installation odor
Contains 27% post consumer recycled product
Processed and manufactured in Ohio

APPLICATION FEATURES

Unique Multi Colored Patterns
100% Solids Epoxy
Tough, Durable & Seamless Floor
Good UV Stability
Protects Substrate from Chemical or Physical Attack
Integral Cove, Base and Curb (optional)
Broadcast System Allows for Ease of Application
USDA Compliant
Contains Anti-Microbial Agents

TYPICAL APPLICATIONS

Commercial/Institutional Kitchens
Pharmaceutical & Research Facilities
Laboratories
Water Treatment Plants
Educational Facilities



The LEED (Leadership in Energy and Environmental Design) Green Building Rating System is a nationally accepted benchmark for Design, Construction, and Operation of High Performance Green Buildings.

LEED and related logo is a trademark owned by the U.S. Green Building Council and is used by permission.

CHEMICAL RESISTANCE

Salts	Alkaline Solutions
Dilute Inorganic Acids	Oils

*Please consult Dudick, Inc. for complete chemical resistance information.

COLORS

Available in standard or custom color patterns.

Consult Dudick, Inc. for complete information.

TYPICAL PHYSICAL PROPERTIES

Compressive Strength MPa)	8000-10,000 PSI (54-68 ASTM C-579
Tensile Strength MPa)	1500-1600 PSI (10-11 ASTM C-307
Flexural Strength ASTM C-580	2200-2400 PSI (15-17 MPa)
Thermal Shock Resistance	Tests in Progress
Taber Abrasion ASTM D 4060	60 mg.
CS-17 Wheel, 1000 Revolutions	
Flame Spread ASTM D-635	< 5 mm/self extinguishing
Volatile Organic Compounds (VOC) ASTM D-3960	
Primer 67	0
Steri-Flake	0
Tensile Bond Strength ASTM D 4541	Cohesive Failure of Concrete
Fungus Resistance U.S. Mil Std. 810E	No Growth

* = Products are not reviewed or certified under the LEED Rating System. LEED credit requirements cover the performance of materials in aggregate, not the performance of individual products or brands. For more information on LEED, visit www.usgbc.org/leed.

SPECIFICATIONS

Steri-Flake system shall be a 1/16" medium traffic, decorative floor that consists of a 100% solids, moisture tolerant primer, a textured impact resistant bodycoat and a UV stable topcoat.

When a 1/8" thickness is required, it is recommended that the application be made in two successive lifts. Using two "broadcast lifts" assures greater uniformity in both thickness as well as aesthetic quality.

Steri-Flake is manufactured by Dudick, Inc. and applied in accordance with the manufacturer's recommendations.

THE STERI-FLAKE SYSTEM

Steri-Flake consists of a moisture tolerant primer, "broadcast" acrylic flake bodycoat and a topcoat. This total system provides a strongly bonded monolithic floor with excellent physical and mechanical properties. **Steri-Flake** is only intended for interior applications and consists of the following components.

Primer: The prepared concrete surface is primed with **Primer 67** to provide the "wetting out" required for good bonding. **Steri-Flake** bodycoat can be applied while the primer is tacky. Do not allow primer to puddle.

Bodycoat: The mineral filled impact resistant **Steri-Flake Bodycoat** develops a cured strength 2-3 times that of concrete, therefore, providing exceptional durability and prolonging the life of the concrete substrate.

Topcoat: **Steri-Flake Topcoat** is a UV and chemical resistant, high gloss topcoat. Three coats of **Steri-Flake Topcoat** may be necessary in order to completely encapsulate the acrylic flake.

ESTIMATING QUANTITIES AND ORDER BILL OF MATERIAL

THEORETICAL SQUARE FEET PER GALLON at 1/16"***	
PRIMER 67	150-200 ft ²
STERI-FLAKE BODYCOAT	80-100 ft. ²
STERI-FLAKE TOPCOAT	150 ft ² per coat
ACRYLIC FLAKE	1/8 lb. / per ft. ²

Consult your Dudick representative for information on pricing and sourcing of acrylic flake.

***Quantities shown are for estimating purposes only. Coverages will vary due to porosity of the substrate.

All quantities are estimated and will be affected by job conditions and workmanship.

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

Concrete must be prepared mechanically to remove surface laitance. Oils, grease or other contaminants must be removed prior to surface preparation. Concrete must be free of curing compounds and form release agents. Surface texture should be similar to 60-80 grit sandpaper or the visual standard, CSP-3 from the International Concrete Repair Institute. The prepared surface should have a nominal tensile strength of 225 PSI per ASTM D-4541.

All concrete substrates must be checked for moisture prior to primer application using the Plastic Sheet Test per ASTM D-4263.

Additional surface preparation will be required if a 60-80 grit texture is not achieved and the surface laitance not completely removed with the first mechanical preparation procedure.

Abrasive blasting removes laitance, exposing honeycombs or voids beneath the surface which can be filled with **Scratch Coat 300**. (Refer to separate product bulletin)

ENVIRONMENTAL CONDITIONS

Temperature of the concrete substrate must be between 50°F and 110°F.

Relative humidity must not exceed 90%.

Substrate temperature must be 5°F above the Dew Point.

PRIMING

PRIMER 67 MIX RATIO

Primer 67	Component A	1 gallon
Primer 67	Component B	1 gallon



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PRIMER 67 POT LIFE

TEMPERATURE	PRIMER 67
50°F	90 min.
75°F	60 min.
90°F	30 min.

PRIMING

Concrete: Mix the pre-measured units of **Component A with Component B**. Prime all concrete surfaces to be coated with **Primer 67** at 3-4 mils WFT. The coating may be applied over primer that is “tacky”. Do not allow the primer to puddle.

STERI-FLAKE BODYCOAT MIX RATIO (BY VOLUME)

Component A 1 gallon
Component B 51 fl. oz.

STERI-FLAKE BODYCOAT POT LIFE AND CURE TIME

STERI-FLAKE BODYCOAT		
Temperature	Pot Life	Cure Time
50°F	50-60 min.	72 hrs.
75°F	30-40 min.	24 hrs.
90°F	20-30 min.	20 hrs.

Prior to adding **Component B**, mix **Steri-Flake Component A** for 1-2 minutes to assure that any filler which may have settled is dispersed. Combine the **A and B Components** and stir mechanically for approximately 2-3 minutes.

Thoroughly scrape the sides and bottom of the container and remix for another 30 seconds to achieve a uniform consistency. Pour the **Steri-Flake Bodycoat** mix directly onto the primed concrete.

The mix should be spread to a 20 mil thickness with a serrated squeegee, notched trowel or gauge rake. The gauge rake is preferred. After spreading the material to the proper thickness, roll with a porcupine roller to level and de-aerate. Broadcast flakes with either a mechanical sprayer or by hand in a “rainfall pattern” into the wet bodycoat to complete saturation (approximately 1/8 pound per square foot of acrylic flake). Once cured, remove excess aggregate and lightly sand to achieve a smooth surface. Vacuum with heavy-duty industrial vacuum cleaner. This will produce a 1/16” thick topping.

STERI-FLAKE TOPCOAT MIX RATIO (BY VOLUME)

Component A 1 gallon
Component B 77 fl. oz.

STERI-FLAKE TOPCOAT POT LIFE AND CURE TIME

Temperature	Pot Life	Recoat Time	Cure Time
50°F	50 min.	12-14 hrs	96 hrs
75°F	30 min.	6-8 hrs	24 hrs
90°F	15 min.	5-6 hrs	20 hrs

Prior to adding the **Component B**, mechanically mix the **Steri-Flake Component A** separately for 1-2 minutes. Add the correct amount of **Component B** and mix for one minute. Apply evenly by roller or squeegee. Apply in 8-10 mil increments to completely cover flake. A minimum of 2 coats is recommended.

Use Dudick **Sealer 30** (aliphatic urethane) for optimum abrasion and color stability as the final coat. Contact Dudick, Inc. for details.

NOTES

Important - With all epoxies after priming and before each additional coat, examine the surface for amine blush (oily film). If present, remove by washing with warm water and detergent.

The pot life of **Steri-Flake** system components will depend upon the temperature. To prevent material waste and avoid damage to equipment, do not mix more material than can be used according to the corresponding chart.

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

Application of **Steri-Flake** system in direct sunlight may lead to blistering, pinholes, or wrinkling due to outgassing of air in the concrete and high substrate temperatures. Double priming, shading or evening application may be required. Consult a Dudick representative.

Steri-Flake system is intended for interior use only.

CLEAN UP

Use **S-10 Cleaning Solvent** to clean tools and equipment.

SHIPPING

Refer to Material Safety Data Sheets.

STORAGE

Warning: All Dudick products classified by DOT with white, yellow or red labels must not be mixed or stored together as an explosive reaction can occur.

All products should be stored in cool, dry area, away from open flames, sparks, or other hazards.

When properly stored in their original, unopened containers at 50°F-75°F, **Primer 67** and **Steri-Flake** components will have a six-month shelf life. Storage in direct sunlight or excessive heat will reduce working time and shelf life.

SAFETY

M.S.D.S.: Material Safety Data Sheets must always be read before using products. The components of the **Steri-Flake System** are intended for application by experienced, professional personnel. Dudick, Inc. can supply supervision to help determine that the surface has been properly prepared, the ingredients correctly mixed, and the materials properly and safely applied. If **Steri-Flake** is to be applied by your own personnel or by a third party contractor, please be sure that they are aware of the following safety precautions:

- Exposure to resins and hardeners through direct skin contact and/or inhalation may cause severe dermatitis reactions in some people. Cleanliness of the skin and clothing is critical and must be of paramount concern.
- Fumes are flammable and heavier than air. Proper ventilation should be maintained to minimize breathing of concentrated fumes.
- Suitable respirators should be used during application.
- Safety glasses, gloves, and suitable protective clothing must be worn at all times during application.
- If contact with hardeners occurs, remove any clothing involved and flush the skin with flowing water. Discard the clothing. Do not attempt to wash and reuse it. The components of the **Steri-Flake System** liquid can be removed with **S-10 Cleaning Solvent, MEK, or Acetone**.
- Keep open flames and sparks away from the area where materials are being mixed and applied.
- If a rash occurs, remove the individual from the work area and seek a physician's care for dermatitis.
- In case of eye contact, flush with water for at least 15 minutes and consult a physician.
- If swallowed, do not induce vomiting; call a physician immediately.

NOTE: Dudick, Inc. ("Dudick") warrants all goods of its manufacture to be as represented in its catalogs and that the manufacture of its products by its employees or sub-contractors shall be performed in a workmanlike manner. Dudick's sole obligation under this warranty shall be to replace any material which its examination shall disclose to be defective. Dudick makes no warranty concerning the suitability of its product for application to any surface, it being understood that the goods have been selected and the application ordered by the Purchaser. DUDICK, INC. MAKES NO WARRANTY, EXPRESS OR IMPLIED, THAT THE GOODS SHALL BE MERCHANTABLE OR THAT THE GOODS ARE FIT FOR ANY PARTICULAR PURPOSE. THE WARRANTY OF REPAIR OR REPLACEMENT SET FORTH HEREIN IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES ARISING BY LAW OR OTHERWISE; AND DUDICK INC. SHALL NOT BE LIABLE FOR



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INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS, DOWN TIME, DAMAGES TO PROPERTY OF THE PURCHASER OR OTHER PERSONS, OR DAMAGES FOR WHICH THE PURCHASER MAY BE LIABLE TO OTHER PERSONS, WHETHER OR NOT OCCASIONED BY DUDICK'S NEGLIGENCE. This warranty shall not be extended, altered or varied except by written instrument signed by Dudick and Purchaser.

3/18/10