



Corporate Offices
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STERI-FLAKE 400

**METHYL METHACRYLATE,
LIGHT-MEDIUM TRAFFIC,
DECORATIVE ACRYLIC
FLAKE FILLED FLOOR SYSTEM**

FEATURES

Unique Multi Colored Patterns
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
Meets USDA / FDA Requirement
Anti-Microbial Agents are available as an option

TYPICAL APPLICATIONS

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

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		
Comprehensive Strength	8000-10,000 PSI (54-68 MPa)	ASTM C-579
Tensile Strength	1800-2200 PSI (10-11 MPa)	ASTM C-307
Flexural Strength	2800 PSI (15-17 MPa)	ASTM C-580
Taber Abrasion	60 mg. CS-17 Wheel, 1000 Revolutions	ASTM D 4060
Tensile Bond Strength	Cohesive Failure of Concrete	ASTM D-7234
Fungus Resistance	No growth	U.S. Mil Std. 810E
VOC Content	Primer 47 34 g/l Bodycoat 20 g/l Topcoat 85 g/l	ASTM 2369 E

SPECIFICATIONS

Steri-Flake 400 system shall be a 1/8" medium traffic, MMA decorative floor that consists of a 100% solids, primer, a textured impact resistant basecoat, decorative flake broadcast, and a UV stable topcoat.

Steri-Flake 400 is manufactured by Dudick, Inc. and applied in accordance with the manufacturer's recommendations.

THE STERI-FLAKE 400 SYSTEM

Steri-Flake 400 consists of a moisture tolerant primer, "broadcast" acrylic flake basecoat and a topcoat. This total system provides a strongly bonded monolithic floor with excellent physical and mechanical properties. **Steri-Flake 400** is only intended for interior applications and consists of the following components.

Primer: The prepared concrete surface is primed with **Primer 47** to provide the "wetting out" required for good bonding. Do not allow primer to puddle. Apply @ 12-15 mils.

Basecoat: The mineral filled impact resistant **Steri-Flake 400 Basecoat** 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 400 Topcoat** is a UV and chemical resistant, high gloss topcoat. Three coats of **Steri-Flake 400 Topcoat** may be necessary in order to completely encapsulate the acrylic flake.

ESTIMATING QUANTITIES AND ORDER BILL OF MATERIAL

THEORETICAL SQUARE FEET at 1/8"	
Primer 47	100-120 ft ² / gallon
Steri-Flake 400 Basecoat	25 ft ² / unit
Steri-Flake 400 Topcoat	100 ft ² / gallon @ 15 mils WFT
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 250 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.

ENVIRONMENTAL CONDITIONS

Relative humidity must not exceed 90%.

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

PRIMING

PRIMER 47 MIX RATIO (BY VOLUME)

Component A 1 gallon
Component B See Mix Ratio chart

Mixing too much catalyst will cause the material to set extremely quickly and may result in improper bonding to concrete. Insufficient catalyst may prevent proper curing

Immediately pour all of the mixed **Primer 47** onto the prepared concrete, spread with a serrated squeegee maintaining a 12-15 mils wet film thickness, then backroll into place with a short nap, solvent resistant roller.

Subsequent application of body coat or topcoat can proceed only after **Primer 47** is completely tack free. The primer is fully cured when it has a uniform flat finish (normally one hour after placement).

MH-1 MIX RATIO			
Substrate Temp.	Primer 47 / gallon	Basecoat / unit	Topcoat / gallon
40°F	10 fl. oz.	9 fl. oz.	3 fl. oz.
50°F	8 fl. oz.	6 fl. oz.	3 fl. oz.
60°F	6 fl. oz.	6 fl. oz.	3 fl. oz.
68°F	4 fl. oz.	4 fl. oz.	2 fl. oz.
>85°F	2 fl. oz.	2 fl. oz.	2 fl. oz.

STERI-FLAKE 400 BASECOAT

Prior to adding **MH-1**, mix **Steri-Flake 400 Resin Component A** for 1-2 minutes to assure that any filler which may have settled is dispersed. Combine **MH-1** and stir mechanically for approximately 1 minute. Add the pre-measured **400SL Filler** and mix for *no more than 2 minutes*. Take care not to incorporate excess air into the mix.

STERI-FLAKE 400 BASECOAT MIX RATIO (BY VOLUME)

Component A 1 gallon
Component B See Mix Ratio chart
400SL Filler 30 lb. / 1 bag



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METHYL METHACRYLATE, LIGHT-MEDIUM TRAFFIC, DECORATIVE ACRYLIC FLAKE FILLED FLOOR SYSTEM

Thoroughly scrape the sides and bottom of the container and remix to achieve a uniform consistency. Pour the **Steri-Flake 400 Basecoat** mix directly onto the primed concrete.

The mix should be spread to a 1/8" (125 mils) 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 basecoat to complete saturation (approximately 1/8 pound per square foot of acrylic flake).

Once cured, remove excess flakes and lightly sand to achieve a smooth surface. Vacuum with heavy-duty industrial vacuum cleaner.

STERI-FLAKE 400 TOPCOAT

Prior to adding the **MH-1**, mechanically mix the **Steri-Flake 400 Resin Component A** separately for 1 minute.

STERI-FLAKE 400 TOPCOAT MIX RATIO (BY VOLUME)

Component A	1 gallon
Component B	See Mix Ratio chart

Add the correct amount of **MH-1** and mix for one minute. Apply evenly by roller or squeegee. Apply in 15 mils increments by roller to completely cover flake. *Two coats are recommended if a completely smooth surface is desired.*

NOTES

All methyl methacrylate installations require good ventilation. Proper ventilation assures that the **Steri-Flake 400** vapors, which are heavier than air are removed from the surface of the floor. Removal of these vapors allows for a hard continuous film to form at the surface.

Steri-Flake 400 is exothermic, generating a large amount of heat when initially mixed. A large mass of material can ignite. Immediately after mixing, pour all of the material onto the floor to dissipate the heat.

The pot life of **Steri-Flake 400** 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.

Exposure to excessive heat may cause premature gelling and reduce the working time.

Steri-Flake 400 is extremely fast setting. Floors must be completely prepared and ready before material is mixed.

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 400** 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 400 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, the **Steri-Flake 400** will have a ninety-day 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 400 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 400** 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 400 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 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.

04/4/17