



## DUDICK, INC.

Corporate Offices

1818 Miller Parkway

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## STERI-FLAKE 470

**HYBRID ESTER POLYMER,  
LIGHT-MEDIUM TRAFFIC,  
FLAKE FILLED FLOOR SYSTEM  
LOW ODOR MMA ALTERNATIVE**

### FEATURES

Low Odor & VOC  
Very Fast Cure  
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 1 FDA Requirement  
Anti-Microbial Agents are available as an option  
Non-Flammable

### TYPICAL APPLICATIONS

Replacement for MMA floors  
For use where low odor and fast cure is required  
Commercial/Institutional Kitchens  
Pharmaceutical & Research Facilities  
Laboratories  
Educational Facilities

### CHEMICAL RESISTANCE

Salts  
Dilute Inorganic Acids

Alkaline Solutions  
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 PRODUCT PROPERTIES		
Comprehensive Strength	8000-10,000 PSI	ASTM C579
Tensile Strength	3000-3500 PSI	ASTM D638
Taber Abrasion	40 mg. CS-17 Wheel, 1000 Cycles	ASTM D4060
Tensile Bond Strength	Cohesive Failure of Concrete	ASTM D7234
VOC Content	<10 g/l	ASTM D2369E
Foot Traffic (per coat)	*~ 2-4 hrs.	
Full Service	*~ 24 hrs.	
Chemical Resistance	*~ 7 days	

\*Can vary depending on ambient conditions

### SPECIFICATIONS

**Steri-Flake 470** system shall be 1/16" - 1/8" medium traffic, decorative floor that consists of 100% solids, primer, an impact resistant basecoat, decorative flake broadcast, and a UV stable grout and topcoat.

**Steri-Flake 470** is manufactured by Dudick, Inc. and applied in accordance with the manufacturer's recommendations.

### THE STERI-FLAKE 470 SYSTEM

**Steri-Flake 470** consists of moisture tolerant primer, "broadcast" acrylic flake and a low odor, non-flammable basecoat, grout and topcoat. This total system provides a strongly bonded floor with excellent physical and mechanical properties. **Steri-Flake 470** is only intended for interior applications and consists of the following components.

**Primer:** The prepared concrete surface is primed with **Primer 70** to provide the "wetting out" required for good bonding. Do not allow primer to puddle. Apply @ 5 mils.

**Basecoat/Broadcast Coat:** The impact resistant **Steri-Flake 470 Basecoat** develops a cured strength 2-3 times

that of concrete, therefore, providing exceptional durability and prolonging the life of the concrete substrate.

**Grout: Steri-Flake 470 Grout:** A UV and chemical resistant, high gloss grout coat.

**Topcoat: Steri-Flake 470 Topcoat:** A UV and chemical resistant, high gloss topcoat.

**ESTIMATING QUANTITIES AND ORDER BILL OF MATERIAL**

THEORETICAL SQUARE FEET	
Primer 70	200-250 ft <sup>2</sup> / gallon
Steri-Flake 470 Basecoat	120-160 ft <sup>2</sup> / gallon
Steri-Flake 470 Grout	120-160 ft <sup>2</sup> / gallon
Steri-Flake 470 Topcoat	180-200 ft <sup>2</sup> / gallon
Acrylic Flake	1/8 lb. per ft <sup>2</sup>

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**

Working life for all the mixed liquid components is **8 – 15 minutes** depending on substrate temperature and ambient temperature. Warmer substrate temperatures result in **shorter** working life.

**MANPOWER REQUIREMENTS**

**Because of the fast curing of Steri-Flake 470 products the following manning is highly recommended as a starting guide. Assign one person to each job – do not multi-task:**

- 1 person mixing**
- 1 person running pails**
- 1 person squeegee**
- 2 person cross-rolling**
- 1 person broadcasting for every 15 linear feet of wet edge**

**-Additional manpower will be required for complex installations requiring cut-in work.**

**-Above manpower applies to maximum 20 foot wet edge**

**SURFACE PREPARATION**

Concrete must be prepared mechanically to remove surface laitance. Oils, grease or other containments 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 D4541.

All concrete substrates must be checked for moisture prior to primer application using the Plastic Sheet Test per ASTM D4263.

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 be less than 20% or exceed 90%.

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

**PRIMING**

**PRIMER 70 MIX RATIO (BY VOLUME)**

Pre-measured units; DO NOT BREAK DOWN

**MIX AND APPLY ONE BATCH AT A TIME – DO NOT MIX HARDENER AND RESIN UNTIL BATCH IS READY FOR IMMEDIATE APPLICATION.**

**Concrete** surfaces must be thoroughly dry before the application of the primer. All concrete must be primed.

Prior to adding **Component B**, mix **Steri-Flake 470 Primer Resin Component A** for 1-2 minutes to assure that anything which may have settled is dispersed. Combine **Component B** and stir mechanically for approximately 1 minute. Take care not to incorporate excess air into the mix (See last page for mix blade recommendations.)

Pour the entire batch onto the floor in a 4 to 6” ribbon. Using a notched squeegee spread the material evenly at approximately 5 mils WFT. Cross roll the material using a 3/8 inch nap **roller immediately** after the squeegee to ensure there are no puddles. All rolling should be completed within 5 minutes of mix time. Allow to cure for 2 hours @ 70°F / 50% RH).



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### STERI-FLAKE 470 BASE/BROADCAST COAT

MIX AND APPLY ONE BATCH AT A TIME – DO NOT MIX HARDENER AND RESIN UNTIL BATCH IS READY FOR IMMEDIATE APPLICATION **STERI-FLAKE 470 BASE/BROADCAST COAT MIX RATIO (BY VOLUME)**

Pre-measured units; DO NOT BREAK DOWN

**Do not use partial or opened containers. Once a container is opened, it must be used. Any leftover material must be disposed.**

Prior to adding **Component B**, mix **Steri-Flake 470 Basecoat Resin Component A** for 1-2 minutes to assure that anything which may have settled is dispersed. Combine **Component B** and stir mechanically for approximately 1 minute. Take care not to incorporate excess air into the mix.

Thoroughly scrape the sides and bottom of the container and remix to achieve a uniform consistency. Pour the **Steri-Flake 470 Basecoat** mix directly onto the primed concrete.

Pour the entire batch onto the floor in a 4 to 6" ribbon. Using a notched squeegee spread the material evenly at approximately 10-12 mils WFT. Cross roll the material using a 3/8 inch nap roller immediately after the squeegee to ensure there are no puddles. All rolling should be completed within 5 minutes. Allow to cure for 2 hours @ 70°F / 50% RH).

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).

Wear spiked shoes while broadcasting chips. Make sure the broadcast is dispersed evenly over the entire floor area at a rate of 1/8<sup>th</sup> lbs. per square foot. Broadcasting needs to be completed within 10 minutes of mixing. Do not roll or walk back into the areas that have been broadcast. Allow to cure for 2 hours (@ 70°F / 50% RH).

Once cured, remove excess flakes. Vacuum with heavy duty industrial vacuum cleaner to remove excess loose chips. Scrape the floor with a towel or floor scraper. Vacuum the floor again.

### STERI-FLAKE 470 GROUT

MIX AND APPLY ONE BATCH AT A TIME – DO NOT MIX HARDENER AND RESIN UNTIL BATCH IS READY FOR IMMEDIATE APPLICATION.

**Do not use partial or opened containers. Once a container is opened, it must be used. Any leftover material must be disposed.**

Prior to adding **Component B**, mix **Steri-Flake 470 Grout coat Resin Component A** for 1-2 minutes to assure that anything which may have settled is dispersed. Combine **Component B** scraping the bottom and sides with a mix stick to assure that all material is transferred to the resin bucket and stir mechanically for approximately 1 minute. Take care not to incorporate excess air into the mix.

Pour the entire batch onto the floor in a 4 to 6" ribbon. Using a notched squeegee spread the material evenly at approximately 10-12 mils WFT. Cross roll the material using a 3/8 inch nap roller immediately after the squeegee to ensure there are no puddles. All rolling should be completed within 5 minutes. Allow to cure for 2 hours @ 70°F / 50% RH).

### STERI-FLAKE 470 TOPCOAT

MIX AND APPLY ONE BATCH AT A TIME – DO NOT MIX HARDENER AND RESIN UNTIL BATCH IS READY FOR IMMEDIATE APPLICATION

**Do not use partial or opened containers. Once a container is opened, it must be used. Any leftover material must be disposed.**

Prior to adding **Component B**, mix **Steri-Flake 470 Topcoat Resin Component A** for 1-2 minutes to assure that anything which may have settled is dispersed. Combine **Component B** scraping the bottom and sides with a mix stick to assure that all material is transferred to

the resin bucket and stir mechanically for approximately 1 minute. Take care not to incorporate excess air into the mix.

Pour the entire batch onto the floor in a 4 to 6" ribbon. Using a notched squeegee spread the material evenly at approximately 8 mils WFT. Cross roll the material using a 3/8 inch nap roller immediately after the squeegee to ensure there are no puddles. All rolling should be completed within 5 minutes. Allow to cure for 2 hours @ 70°F / 50% RH).

## NOTES

**Steri-Flake 470 liquids are exothermic and may generate a large amount of heat when initially mixed. Immediately after mixing, pour all of the material onto the floor to dissipate the heat and assure proper working life.**

The pot life of **Steri-Flake 470** 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 immediately.

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

**Steri-Flake 470** 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 470** 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 470** 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 470** will have a 6 month shelf life. **Containers that have been opened must be discarded if not used.** Storage in direct sunlight or excessive heat will reduce working time and shelf life.

## SAFETY

**S.D.S.: Safety Data Sheets** must always be read before using products. The components of the **Steri-Flake 470 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 470** 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 from cleaning solvent 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 470 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.



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**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.

The following is information that may be helpful in selection of proper mixing equipment.

Because of the fast cure of Steri-Flake 470 liquids, long mixing times are counter-productive. This style mixing blade (pictured below) will help reduce the required mixing time while providing adequate mixing.

This style blade is available from many hardware and home supply stores.

The following is a link showing a quick (1 min) video demonstration.

<http://www.jifflermixer.com/index.php?category=media&id=videos>

Model 121 SS (Stainless Steel) is best recommendation.



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