

Corporate Offices 1818 Miller Parkway Streetsboro, OH 44241 330-562-1970 800-322-1970 330-562-7638 FAX www.dudick.com

STERI-FLOR Q SOLVENT-FREE, HEAVY DUTY DECORATIVE QUARTZ OR VINYL FLAKE FLOORING 1/4" (6.2 mm)

GREEN BUILDING FEATURES

* Steri-Flor Q @ contributes toward satisfying credit MR 5 and EQ 4.2 under LEED.

Low emitting material No volatile organic compounds Low installation odor Processed and manufactured in Ohio

FEATURES

USDA Compliant 100% Solids Epoxy High Compressive Strength Good UV Stability No Aggregate Dusting Integral Cove Base and Curb (optional)

Factory Engineered Aggregate blend for Power and Hand Trowel Applications Contains Anti-Microbial Agents

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.

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TYPICAL APPLICATIONS

Light & Heavy Manufacturing
Food Processing, Beverage Plants, Dairies
Breweries & Distilleries
Pharmaceutical & Research Facilities
High Traffic Areas (Aisleways, Loading Docks)

CHEMICAL RESISTANCE

Salts Alkaline Solutions

Dilute Inorganic Acids Oils

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

COLORS

Consult Dudick, Inc. for available colors. Solid Color Version Available

TYPICAL PHYSICAL PROPERTIES

Compressive Strength 7000-9000 PSI (48-62)

MPa) ASTM C-579

Tensile Strength 1800-2000 PSI (12-14

MPa) ASTM C-307

Flexural Strength2500-2700 PSI (17-19 MPa)

ASTM C-580

Thermal Shock Tests in Progress

Resistance

Taber Abrasion 40 mg.

ASTM D 4060 CS-17 Wheel.

1000 Revolutions

Flame Spread < 5 mm/self extinguishing

ASTM D-635

Volatile Organic Compounds (VOC)

ASTM D-3960

Primer 67 0 Steri-Flor Q 0

Tensile Bond Strength Cohesive Failure

ASTM D 4541 of Concrete Fungus Resistance No Growth

U.S. Mil Std. 810E

SPECIFICATIONS

Steri-Flor Q system shall be a 1/4" heavy duty industrial floor that consists of a 100% solids, moisture tolerant primer, a bodycoat consisting of factory engineered aggregate and a highly UV stable topcoat.

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

THE STERI-FLOR Q SYSTEM

Steri-Flor Q consists of a moisture tolerant primer, factory engineered aggregate bodycoat, a grout coat, quartz or decorative flake filled topcoat and highly UV sealer coat. The total system provides a strongly bonded monolithic floor system with excellent physical and mechanical properties. **Steri-Flor Q** is 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-Flor Q Bodycoat** can be applied while the primer is tacky. It is recommended that an angular sand be broadcast into the primer to aid in even distribution and improved troweling characteristics. Do not allow primer to puddle.

Bodycoat: The engineered aggregate filled **Steri-Flor Q** bodycoat develops a cured strength 2-3 times that of concrete providing exceptional durability and prolonging the life of the concrete substrate.

Grout Coat: The Steri-Flor Q Bodycoat resin is used to fill any porosity that might be present.

Topcoat: The decorative quartz or vinyl flake broadcast **Steri-Flor Q Topcoat** applied directly to the **Steri-Flor Q Bodycoat** provides a durable yet aesthetically appealing look to this heavy duty flooring system. A solid color topcoat is available.

Sealer Coat: Steri-Flor Q Sealer Coat is a UV and chemical resistant, clear, high gloss topcoat. Two coats of **Steri-Flor Q Sealer Coat** may be necessary depending upon the "approved" specified texture of

the finished **Steri-Flor Q** flooring system. For additional UV resistance, a final coat of **Sealer 30**, aliphatic urethane can be applied at 2-3 mils.

ESTIMATING QUANTITIES** AND ORDER BILL OF MATERIAL

Decorative Quartz Finish

Decorative Quartz I mish		
APPROXIMATE SQUARE FEET		
PER GALLON at 1/4"		
Primer 67	150-200 ft. ²	
Steri-Flor Q Bodycoat	100 ft. ² /unit	
Steri-Flor Q Grout Coat	80-100 ft.²/gallon	
Steri-Flor Q Topcoat	80 ft.²/gallon	
Medium Broadcast		
Quartz Aggregate	.75 lb. / ft ²	
Steri-Flor Q Sealer Coat *	80-100 ft. ²	
Optional: Sealer 30	300-400 ft. ²	

^{*}Optional second coat of **Steri-Flor Q Sealer Coat** may be necessary depending upon "approved" texture required. For additional UV resistance, a final coat of **Sealer 30**, aliphatic urethane can be applied at 2-3 mils.

Vinyl Flake Finish

APPROXIMATE SQUARE FEET		
PER GALLON at 1/4"		
Primer 67	150-200 ft. ²	
Steri-Flor Q Bodycoat	100 ft.²/unit	
Steri-Flor Q Grout Coat	80-100 ft. ² /gallon	
Steri-Flor Q Topcoat	80 ft. ² @ 20 mils	
Vinyl Flake	1/8 lbs./ ft. ²	
Steri-Flor Q Sealer Coat	125-150 ft. ²	
Optional: Sealer 30	300-400 ft. ²	

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

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



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APPLICATION INSTRUCTIONS

SURFACE PREPARATION

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

Mechanical preparation 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 BY VOLUME

Component A 1 part Component B 1 part

PRIMER 67 POT LIFE & CURE TIME

Temperature	Pot Life	Cure Time
50°F	50 min.	12-14 hours
75°F	30 min.	6-8 hours
90°F	15 min.	5-6 hours

Mechanically mix the premeasured units of **S Primer 67 Component A with Component B** for 3-4 minutes. Prime the concrete surface at 4-5 mils WFT. The primer can be brush, roller or squeegee applied. Angular sand, 16-20 mesh, SHOULD be broadcast into the wet primer. DO NOT BACK-ROLL.

STERI-FLOR Q BODYCOAT MIX RATIO BY VOLUME

Component A * premeasured
Component B * premeasured
EA-1 Aggregate 4 - 50 lb. Bags

NOTE: THE ABOVE COMPONENTS ARE SUPPLIED PRE-MEASURED and represents the mix design tested by Dudick Inc. The use of locally sourced aggregate or altered mix design may change coverage rates.

STERI-FLOR Q POT LIFE AND CURE TIME

STERI-FLOR Q		
Temperature	Pot Life	Cure Time
50°F	60-70 min.	72 hrs.
75°F	40-50 min.	24 hrs.
90°F	30-40 min.	20 hrs.

BODYCOAT

Steri-Flor Q Components should be mixed in a mortar mixer. The liquids must be thoroughly blended before adding the aggregate. Mechanically premix premeasured **Steri-Flor Q Components A & B** thoroughly for 1-2 minutes before adding to mixer. Gradually add four (4) bags of **EA-1 Aggregate** and mix 2-3 minutes or until a uniform consistency is achieved. For the first batch, use only 3 1/2 bags to allow the mixer to wet-out.

Pour the mixed **Steri-Flor Q** into a wheelbarrow and transport to each work area. Place mix directly onto the primed concrete for hand trowel applications. Use a wooden straight edge or screed box to initially distribute the material, and finish tightly using steel trowels.

For power trowel applications, the mix should be spread with a screed box to evenly distribute the material in rows. It is preferred to screed out over wet primer.

For optimum results, finish the topping with a 48 - 52 inch power trowel within 10-20 minutes of placement. Over-trowelling can lead to blistering and excessive burnishing. Final finishing using a hover trowel (if available) can achieve an extremely smooth and tightly closed surface. Workmen must wear spiked shoes to avoid depressions while power-trowelling.

The power and hand trowel blades should be cleaned periodically to remove resin buildup.

To terminate work, square cut the topping and start the next work period butting to this edge. Permanent terminating edges should be beveled into saw cuts in the concrete.

Always use appropriate lighting to detect "chatter" marks and trowel mark defects.

Allow **Steri-Flor Q Bodycoat** to cure overnight at 75°F. Hand or power sand to remove projections, spatters.

GROUT COAT

After grinding and sanding, apply primer/grout coat resin at a rate of 80-100 ft²/unit to fill any porosity in the body coat. Let cure to tack free state and apply topcoat.

DECORATIVE QUARTZ FINISH

STERI-FLOR Q TOPCOAT

STERI-FLOR Q TOPCOAT MIX RATIO BY VOLUME

Component A 1 gallon Component B 77 fl. oz.

STERI-FLOR Q TOPCOAT POT LIFE AND CURE TIME

STERI-FLOR Q TOPCOAT		
Temperature	Pot Life	Cure Time
50°F	60-60 min.	72 hrs.
75°F	30-40 min.	24 hrs.
90°F	15-30 min.	20 hrs.

TOPCOAT APPLICATION

Prior to adding Component B, mix Steri-Flor Q Topcoat 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-Flor Q Topcoat onto the cured Steri-Flor Q Bodycoat.

The mix should be spread to a 15-mil thickness with a serrated squeegee, notched trowel or gauge rake. After spreading the material to the proper thickness, roll with a porcupine roller to level and de-aerate.



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Broadcast with either a mechanical sprayer or by hand in a "rainfall pattern" into the wet topcoat to complete saturation (approximately 1# per square foot of "medium" broadcast quartz aggregate). Once cured, remove excess aggregate with heavy duty industrial vacuum cleaner.

STERI-FLOR Q SEALER MIX RATIO BY VOLUME

Component A 1 gallon Component B 77 fl. oz.

STERI-FLOR Q SEALER POT LIFE AND CURE TIME

Temperature	Pot	Cure Time	Recoat
	Life		min. max.
50°F	50 min.	12-14 hours	7-9 hrs. 120 hrs.
75°F	30 min.	6-8 hours	5-6 hrs. 72 hrs.
90°F	15 min.	5-6 hours	3-4 hrs. 48 hrs.

Prior to adding the **Component B**, mechanically mix the **Steri-Flor Q Sealer Component A** separately for 1-2 minutes.

Add the correct amount of **Component B** and mix until a uniform color is achieved. Using a short nap roller, apply evenly to a 10-12 mil WFT. **Steri-Flor Q Sealer** may also be applied with a serrated squeegee.

An optional second coat may be applied after the first coat has cured tack free, (approximately 5-6 hours) at 75°F for a smoother texture.

VINYL FLAKE FINISH

MIX RATIO (BY VOLUME)

Component A 1 gallon Component B 51 fl. oz.

STERI-FLOR Q PIGMENTED POT LIFE AND CURE TIME

Temperature	Pot Life	Cure Time
50°F	80-90 min.	72 hrs.
75°F	50-60 min.	24 hrs.
90°F	30-40 min.	20 hrs.

STERI-FLOR Q TOPCOAT

Prior to adding Component B, mix Steri-Flor Q Topcoat Component A for 1-2 minutes to assure that any pigment or filler which may have settled is redispersed so that a uniform color is achieved. 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 color and consistency. Pour the Steri-Flor Q Topcoat 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 vinyl flakes into the wet basecoat to complete saturation. Once cured, remove excess with a broom.

STERI-FLOR Q SEALER

Prior to adding Component B, mix Steri-Flor Component A for 1-2 minutes. Combine the A and B Component 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 color and consistency. Apply by roller at 8-10 wet mils. If surface texture is too rough a second sealer can be applied.

NOTES

Important - With all expoxies 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-Flor Q** system will depend on the temperature. To prevent material waste and avoid damage to equipment, do not mix more material than can be used according to the corresponding Pot Life charts.

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

Application of **Steri-Flor Q 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-Flor Q system is intended for interior use only.

CLEAN UP

Use S-10 Cleaning Solvent, MEK or Acetone to clean tools and equipment. DO NOT USE LACQUER THINNER.

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 a 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-Flor Q** components will have a 6-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-Flor O System are for application experienced, intended by 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 the Steri-Flor Q System 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.



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

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