

DUDICK, INC.

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 Low VOC 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
Anti-Microbial Agents are available as an option



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 | 7,000-9,000 PSI |
|-----------------------|--------------------------|
| ASTM C579 | (48-62 MPa) |
| Tensile Strength | 1,800-2,000 PSI |
| ASTM C307 | (12-14 MPa) |
| Flexural Strength | 2,500-2,700 PSI |
| ASTM C580 | (17-19 MPa) |
| Taber Abrasion | 40 mg |
| ASTM D4060 | 40 mg. |
| Flame Spread | 5 mm/solf outinguishing |
| ASTM D635 | <5 mm/self extinguishing |
| Tensile Bond Strength | Cohesive failure of |
| ASTM D7234 | concrete |

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 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 Sealer can be applied over top.

ESTIMATING QUANTITIES**

Decorative Quartz Finish

| APPROXIMATE SQUARE FEET PER GALLON at 1/4" | | |
|--|----------------------------|--|
| Primer See specified | | |
| | Primer Data Sheets | |
| 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 | $.75 \text{ lb.} / \text{ft}^2$ |
| Steri-Flor Q Sealer Coat * | 80-100 ft. ² |
| Optional: Sealer | |

OPTIONAL SEALERS

For **improved** UV stability, abrasion, stain resistance and chemical resistance. A Sealer can be applied over **Steri-Flor Q**. Consult Dudick for best options.

VINYL FLAKE FINISH

| APPROXIMATE SQUARE FEET PER GALLON at ¼" | | |
|---|---------------------------------|--|
| | See specified | |
| Primer | Primer Data | |
| | Sheets | |
| 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 | | |

^{**}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.

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



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nominal tensile strength of 250 PSI per ASTM D7234.

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.

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

The following Primers are compatible with **Steri-Flor Q**: Primer 67, Primer 67LV, Primer 67DPLV, Primer 67DTO & Primer 60.

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 * Pre-measured
Component B * Pre-measured
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.

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.

STERI-FLOR Q GROUT COAT QUARTZ / FLAKE FINISH MIX RATIO

Component A *Pre-measured Component B *Pre-measured

TOP COAT

STERI-FLOR Q TOPCOAT MIX RATIO BY VOLUME

Component A * Pre-measured Component B * Pre-measured

GROUT COAT / TOPCOAT STERI-FLOR Q POT LIFE AND CURE TIME

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

TOPCOAT APPLICATION

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, broadcast with either a mechanical sprayer or by hand in a "rainfall pattern" into the wet topcoat to complete saturation. Once cured, remove excess aggregate/flakes with heavy duty industrial vacuum cleaner. Vinyl flakes should be scraped with a straight metal floor blade to aid in a flat lying surface. Not scraping the flake will leave a textured floor that may not get fully sealed.

STERI-FLOR Q SEALER MIX RATIO BY VOLUME

Component A * Pre-measured Component B * Pre-measured

STERI-FLOR Q SEALER POT LIFE AND CURE TIME

| Temperature | Pot Life | Cure Time | Recoat 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.



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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, **Primers 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 Q System are intended application experienced, for 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.
- 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 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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