



DUDICK, INC.

Corporate Offices
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STERI-FLOR T-N

**HYBRID NOVOLAC EPOXY,
HEAVY DUTY
INDUSTRIAL FLOOR SYSTEM
3/16" - 1/4" (4.8 mm - 6.4 mm)**

GREEN BUILDING FEATURES

* Steri-Flor T-N contributes toward satisfying credit MR 4 and 5 and EQ 4.2 under LEED.

Low emitting material
No volatile organic compounds
Low installation odor
Contains 30% recycled glass
Processed and manufactured in Ohio

APPLICATION FEATURES

USDA Compliant
100% Solids Hybrid Novolac Epoxy
High Compressive Strength
Low Odor
No Aggregate Dusting
Integral Cove Base and Curb (optional)
Factory Engineered Aggregate blend for Power and Hand Trowel Applications

TYPICAL APPLICATIONS

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



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

Inorganic Acids	Oils
Alkali Solutions	Solvents
Salts	

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

COLORS

Standard Colors available (See color chart). Consult Dudick, Inc. for special colors.

STERI-FLOR T-N BASECOAT PHYSICAL PROPERTIES

Compressive Strength	
ASTM C-579	9000-10,000 PSI (48-62 MPa)
ASTM C-109	13,000 PSI
Tensile Strength	
ASTM C-307	1800-2000 PSI (12-14 MPa)
ASTM C-190	2,000 PSI
Thermal Coefficient of Linear Expansion	
ASTM C-531: 1.8×10^{-5}	
Flexural Strength	5,000 PSI (17-19 MPa)
ASTM C-580	
Thermal Shock Resistance	Tests in Progress
Flame Spread	<5 mm/self extinguishing
ASTM D-635	
Volatile Organic Compounds (VOC)	
ASTM D-3960	
Primer 67	0
Steri-Flor T-N BASECOAT	0
Steri-Flor T-N Topcoat	0
Tensile Bond Strength	Cohesive Failure of Concrete
ASTM D 4541	

* = 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.

TYPICAL PHYSICAL PROPERTIES

Compressive Strength ASTM C-579	9,000 - 9,500 PSI
Tensile Strength ASTM C-307	3,000 - 3,500 PSI
Flexural Strength ASTM C-580	5,000 - 5,200 PSI
Shore D Hardness ASTM D-2240	85-90
Taber Abrasion ASTM D-4060	72 mg. (0.072 g)
Flame Spread ASTM D-635	<5 mm
VOC ASTM D-3960	0
WVT ASTM E-96	0.0018 perm. in.
Static Coefficient of Friction ASTM C – 1028	. 86 dry . 54 wet
Impact Resistance ASTM D – 4226	>160 PSI

SPECIFICATIONS

Steri-Flor T-N system shall be a 3/16” - 1/4” heavy duty industrial floor that consists of a 100% solids, moisture tolerant primer, a **BASECOAT** consisting of factory engineered aggregate, resin and a topcoat.

Steri-Flor T-N is manufactured by Dudick, Inc. and applied in accordance with the manufacturer’s recommendations.

THE STERI-FLOR T-N SYSTEM

Steri-Flor T-N consists of a moisture tolerant primer; factory engineered aggregate with hybrid novolac resin **BASECOAT**, and novolac topcoat. The total system provides a strongly bonded monolithic floor system with excellent physical, chemical and mechanical properties. **Steri-Flor T-N** 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 T-N BASECOAT** can be applied while the Primer is tacky. It is recommended that angular sand be broadcast into the Primer to aid in even distribution and to improve trowelling characteristics when not wet priming. Do not allow Primer to puddle.

BASECOAT: The engineered aggregate filled **Steri-Flor T-N BASECOAT** develops a cured strength 2-3 times that of concrete providing exceptional durability

and prolonging the life of the concrete substrate. The **Grout Coat** resin is then used to fill any porosity that might be present.

Topcoat: The novolac epoxy binder and flake fillers in **Steri-Flor T – N Topcoat** provides the low permeability, high film integrity, and excellent chemical resistance required for prolonged chemical protection.

ESTIMATING QUANTITIES AND ORDER BILL OF MATERIAL

STERI-FLOR T -N UNIT COVERAGE RATES	
Primer	150-200 ft ² / gallon
Steri-Flor T-N Basecoat	100 ft. ² / unit @ 3/16”
Grout Coat	175-200 ft ² / gallon
Steri-Flor T-N Topcoat	100 ft. ² / gallon

**Quantities shown are for estimating purposes only and will be affected by job conditions and workmanship.

**Coverages will vary due to the porosity of substrate.

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)



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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 gallon
Component B 1 gallon

PRIMER 67 POT LIFE AND CURE TIME

Temperature	Pot Life	Cure Time
50°F	90 min.	12-14 hours
75°F	60 min.	6-8 hours
90°F	30 min.	4-5 hours

Mechanically mix premeasured units of **Primer 67 Component A with Component B** for 3-4 minutes. Prime the concrete surface at 4-6 mils WFT. The primer can be brushed, roller or squeegee applied.

For larger floors combine a usable number of primer/grout units relative to the floor area (250 ft²/unit). Angular sand, 16-20 mesh, SHOULD be broadcast into the wet primer when planning to trowel the next day. DO NOT BACK-ROLL. BASECOAT can be trowelled directly over wet primer.

STERI-FLOR T-N BASECOAT RESIN MIX RATIO (BY VOLUME)

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

STERI-FLOR T-N POT LIFE AND CURE TIME

STERI-FLOR T-N BASECOAT		
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.

BASECOAT

Steri-Flor T-N Components should be mixed in a mortar mixer. The liquids must be thoroughly blended before adding the aggregate. Mechanically premix premeasured **Steri-Flor T-N Components A & B** thoroughly for 1-2 minutes before adding to mixer. Gradually add **EA-1 Aggregate** and mix 2-3 minutes or until a uniform consistency is achieved.

Pour the mixed **Steri-Flor T-N** 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 T-N BASECOAT** to cure overnight at 75°F. Hand or power sand to remove projections spatters.

GROUT COAT MIX RATIO (BY VOLUME)

Component A 1 gallon
Component B 71 fl. oz.

After grinding and sanding, apply grout coat resin at a rate of 175-200 ft²/unit to fill any porosity in the body coat. Let cure to tack free state and apply colored topcoat.

STERI-FLOR T-N TOPCOAT MIX RATIO (BY VOLUME)

Component A 1 gallon
Component B 49 fl. oz.

STERI-FLOR T-N TOPCOAT POT LIFE AND CURE TIME

Temperature	Pot Life	Cure Time	Recoat	
			min.	max.
50°F	80 min.	96 hours	24-36hrs.	120 hrs.
75°F	60 min.	36 hours	16-24hrs.	72 hrs.
90°F	40 min.	24 hours	12-16hrs.	48 hrs.

Add the correct amount of **Component B** and mix until a uniform color is achieved. Using a short nap roller, apply evenly to 15 mils WFT. **Steri-Flor T-N Topcoat** may also be applied with a serrated squeegee followed by a backroll.

An optional second coat may be applied after the first coat has cured tack free, (approximately 8-10 hours) at 75°F. For other topcoat availability, please contact Dudick, Inc.

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-Flor T-N** 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 T-N 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.

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 T-N** 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-Flor T-N Systems** 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-Flor T-N** 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.



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- 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 T-N 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.

11/28/11