Dudick inc.

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

PROTECTO-CRETE 900/900SF

TROWEL APPLIED OR SEEDED NOVOLAC VINYL ESTER FLOOR TOPPING

FEATURES

Excellent Chemical Resistance
Excellent Wear Resistance
Excellent Bond Strength to Concrete

RECOMMENDED APPLICATIONS

Plating Room Floors	Dike Areas
Pickling Room Floors	Aisleways
Truck Loading Platforms	Chemical Labs
Chemical Storage	Solvents

CHEMICAL RESISTANCE

Organic Acids	Oils
Inorganic Acids	Salts
Solvents	
Alkali Solutions	

TEMPERATURE LIMITS

150°F – Continuous
NOT recommended for areas with Thermal Shock

PHYSICAL PROPERTIES

	PC-900	PC-900SF
Compressive Strength ASTM C-579	11,000 PSI	9,500 PSI
Tensile Strength ASTM C-307	1,800 PSI	1,800 PSI
Flexural Strength ASTM C-580	3,600 PSI	4,000 PSI
Flame Spread ASTM D-635	<5 mm	Same
Tensile Bond Strength ASTM D-7234	Cohesive Failure of Concrete	Same
Thermal Shock Resistance	40°F-160°F	Same
Taber Abrasion, CS-17 wheel, 1000 cycles, 1000 gram load ASTM D-4060	35 mg.	51 mg.

SPECIFICATIONS

Protecto-Crete 900 shall be a 3/16" thick aggregate filled, trowel applied novolac vinyl ester floor topping. **Protecto-Crete 900SF** shall be 1/16" - 1/8" thick seeded novolac vinyl ester floor topping.

Both products are manufactured by Dudick, Inc., and applied in accordance with the manufacturer's recommendations.

THE PROTECTO-CRETE 900 SYSTEM

Protecto-Crete 900 uses a primer and an engineered aggregate filled novolac vinyl ester resin.

Primer 27: The blasted or etched concrete surface must be primed to provide the "wetting out" required for good bonding. **Protecto-Crete 900** should be applied while the primer is still tacky. Do not allow primer to puddle. If application is not expected over tacky primer, a light sand broadcast will provide better troweling properties for **Protecto-Crete 900**.

Topcoat: The aggregate filled, **Protecto-Crete 900** topcoat develops a cured strength 2-3 times that of the concrete base to which it is applied to provide exceptional durability and prolong the life of the substrate.

Optional 900 Sealer: For increased resistance to chemicals and moisture a sealer should be applied. An

optional second coat can be used to provide a non-slip texture.

THE PROTECTO-CRETE 900SF SYSTEM

Protecto-Crete 900SF uses a primer, a semi-self leveling novolac vinyl ester basecoat and a sand or aluminum oxide broadcast.

Primer 27: The blasted or etched concrete surface must be primed to provide the "wetting out" required for good bonding. **Protecto-Crete 900SF** should be applied while the primer is still tacky. Do not allow primer to puddle.

Broadcast: Sand or aluminum oxide is used for strength and surface texture; aluminum oxide provides additional chemical and abrasion resistance. Either material is broadcasted to complete saturation and the excess removed by sweeping.

Protecto-Crete 900SF Topcoat: For increased resistance to chemicals and moisture a sealer should be applied. An optional second coat can be used to reduce surface texture.

ESTIMATING QUANTITIES AND ORDER BILL OF MATERIAL

APPROXIMATE SQUARE FEET PER GALLON		
Primer 27	150-200 ft.²	3-4 mils WFT
Protecto-Crete 900		
Trowelled Topcoat	115-125 ft.²/unit	3/16"
Optional 900 Sealer	150-200 ft.²	6-8 mils DFT
S-10 Solvent	500 ft.²	Clean-up
S-30	200 ft.²	Smoothing

**Quantities shown are for estimating purposes only. Actual field usage may vary.

During manufacturing, some air entrapment occurs in the more viscous lining systems. During storage and transportation, settling can occur when entrapped air escapes this mix indicating less than 100% volumetric fill. All products are priced and sold by weight and not necessarily by volume.

APPROXIMATE SQUARE FEET PER GALLON		
Primer 27	150-200 ft.²	3-4 mils
Protecto-Crete 900 SF		
Resin Basecoat	45 – 55 ft.²/gallon	1/16"
Aluminum Oxide	1 - 1¼ lbs./ ft.²	
Sand	3/4 lb./ft.²	
900 SF Topcoat	80-100 ft.²	15-20 mils
S-10	500 ft.²	Clean-up

**Quantities shown are for estimating purposes only. Actual field usage may vary.

During manufacturing, some air entrapment occurs in the more viscous lining systems. During storage and transportation, settling can occur when entrapped air escapes this mix indicating less than 100% volumetric fill. All products are priced and sold by weight and not necessarily by volume.

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

Concrete: 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 40-60-grit sandpaper **with exposed pea gravel.** The prepared surface should have a minimum tensile strength of 250 PSI per ASTM D-4541.

All concrete substrates must be checked for moisture prior to product application using the Plastic Sheet Test, ASTM D-4263.

Additional surface preparation will be required if a 40-60 grit texture **with exposed pea gravel** is not achieved and the surface laitance not completely removed to after with the first mechanical preparation procedure.

Mechanical preparation removes laitance, exposing honeycombs or voids beneath the surface, which must be filled with **Scratch-Coat 800**. (Refer to separate product bulletin.)

Dudick inc.

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

PROTECTO-CRETE 900/900SF

TROWEL APPLIED OR SEEDED NOVOLAC VINYL ESTER FLOOR TOPPING

APPLICATION SPECIFICATIONS

Temperature of concrete substrate must be between 50ºF and 110ºF.

Relative humidity must not exceed 90%.

Substrate temperature must be 5ºF above the Dew Point.

Hardener Amount/Gallon

Hardener	Sub Temp	Primer 27	P-Crete 900/900SF	900Sealer/ 900SF Topcoat
PH-1	50°F-70°F	3-4 ozs.	3-4 ozs.	3-4 ozs.
PH-1	70°F-90°F	2-3 ozs.	2-3 ozs.	2-3 ozs.

PRIMING

Concrete: Concrete must always be primed to aid in the "wetting out" required for good bonding. Mix **Primer 27** with the correct amount of PH-**1 Hardener** for 2-3 minutes and apply with a brush, roller or spray to a 2-4 mil WFT. Do not allow the primer to puddle. We recommend the topcoat be applied over tacky primer.

Pot Life of the mixed **Protecto-Crete 900/900SF** will depend on the temperature. To prevent material waste and avoid damage to equipment, do not mix more materials than can be used according to the following table:

PROTECTO-CRETE 900/900SF		
Optional 900 Sealer/900SF Topcoat		
Temperature	**Pot Life**	**Cure Time**
50ºF	50-60 min.	72 hrs.
75ºF	30-40 min.	24 hrs.
90ºF	20-30 min.	20 hrs.

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

Application of **Protecto-Crete 900/900SF** in direct sunlight may lead to blistering, pinholes, or wrinkling due to out-gassing of air in the concrete and high substrate temperatures. Double priming, shading or evening application may be required. Consult a Dudick representative.

PROTECTO-CRETE 900 MIX RATIO

Protecto-Crete 900 Resin	25.5 lbs.
PH-1 Hardener (@ 75ºF)	8 fl. oz.
EA-1 Aggregate	4-50 lb. bags

Pre-measured units by weight.

TROWELLED TOPCOAT

Protecto-Crete 900 components can be mixed in a concrete mixer or mortar box. The liquids must be thoroughly blended before adding the aggregate.

Premix **Protecto-Crete 900** liquid for 1-2 minutes to re-disperse any pigments or fillers that may have settled before adding **PH-1 Hardener**. Gradually add 4 bags of **EA-1 Aggregate** and mix well for 3-4 minutes or until a uniform consistency is achieved.

Pour the **Protecto-Crete 900** mix into a wheelbarrow and transport to each workman's area. Dump directly onto the primed concrete. The mix should be spread with a plasterer's trowel or wood screeds; final finish with a trowel. Over-troweling will cause blistering, and must be avoided.

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

If the surface becomes excessively "sticky", lightly brush the trowel blade with **S-30 Smoothing Liquid**.

Allow **Protecto-Crete 900** to cure overnight before sealing or subjecting the area to foot traffic. Allow 24 hours at 75ºF before permitting truck traffic.

In order to prevent curing problems with styrenated products, air movement and/or ventilation must be maintained not only during application but also after application until the system has totally cured. This will prevent high concentration of styrene inhibiting/retarding the cure of the system.

PROTECTO-CRETE 900SF BASECOAT

Prior to adding the **PH-1 Hardener,** mix **Protecto-Crete 900SF** for 1-2 minutes to assure that any pigment or filler which may have settled to the bottom is re-dispersed until a uniform color is achieved. Add the correct amount of **PH-1 Hardener** to 1 gallon of resin and mix thoroughly for 2-3 minutes. Apply 25-30 mils of mixed material to the primed concrete. A gauge rack is preferred for spreading the basecoat. Immediately after applying the material to the proper thickness, use a porcupine roller to level and deaerate the topping. Broadcast 20-40-mesh sand or aluminum oxide into the wet basecoat to complete saturation. Once cured, remove the excess with a broom. This will produce a 1/16" thick topping. If additional thickness is specified, repeat the above steps.

PROTECTO-CRETE 900SF TOPCOAT

Prior to adding the **PH-1 Hardener**, mix the sealer separately for 1-2 minutes to re-disperse any pigments or fillers which have settled.

Add the correct amount of **PH-1 Hardener** to the **900SF Topcoat** and mix until a uniform color is achieved. Using a short nap roller, apply evenly to a 15-20 mil WFT.

To reduce surface texture, an optional second coat should be applied after the first coat has cured.

In order to prevent curing problems with styrenated products, air movement and/or ventilation must be maintained not only during application but also after application until the system has totally cured. This will prevent high concentration of styrene inhibiting/retarding the cure of the system.

CLEANING

Use **S-10 Cleaning Solvent** to clean tools and equipment. **DO NOT USE ACETONE.**

SHIPPING

Refer to Material Safety Data Sheets (MSDS).

STORAGE

Warning: All Dudick products classified by DOT with either white, yellow or red labels must not be mixed or stored together as an explosive reaction can occur.

Store all products 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 27** and **Protecto-Crete 900/900SF** will have a shelf life of three- months or less. At temperatures above 75°F, two- months or less. **PH-1 Hardener** will have a six-month shelf life at 50°F-75°F. Exposure to excessive heat may cause premature gelling, reduce working time and shelf life.

SAFETY

M.S.D.S.: Material Safety Data Sheets must always be read before using products. Protecto-Crete 900/900SF toppings 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 **Protecto-Crete 900/900SF** toppings are 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.

Dudick inc.

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

- 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. **Protecto-Crete 900/900SF** liquid can be removed with **S-10 Cleaning Solvent**, MEK, or lacquer thinner. **DO NOT USE 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.

2/9/15