Dudick inc.

Corporate Offices
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SHOCK–CRETE

TROWEL APPLIED WATER DISPERSED POLYURETHANE FLOOR TOPPING, 1/4" - 3/8" (6mm – 10mm)

FEATURES

Thermal Shock Resistant
Excellent Chemical Resistance
Low Odor
Fast Setting
Low Temperature Cure
USDA Compliant
100% Reactive
Anti-Microbial Agents are available as an option
Resistant to Steam Cleaning
Coefficient of Thermal Expansion
Similar to Concrete
VOC Compliant

RECOMMENDED APPLICATIONS

General Concrete Restoration
Breweries and Beverage Plants
Automotive Aisleways
Food Processing Plants
Meat Packaging Plants
Loading Ramps
Packing Plants
Machine Shops
Wet Wells

CHEMICAL RESISTANCE

Organic Acids
Dilute Inorganic Acids
Alkali Solutions
Salts
Oils
Aliphatic Solvents

TEMPERATURE LIMITS

-120ºF to 220ºF
100ºF – Continuous Chemical Exposure
220ºF – Frequent Steam Cleaning

COLORS: Red and Grey
Consult Dudick, Inc. for additional colors.

PHYSICAL PROPERTIES

Coefficient of Thermal Expansion ASTM C-531	1.1×10^{-5}
Compressive Strength ASTM C-579	7,300 PSI
Modulus of Elasticity ASTM C-579	1.7×10^{5} PSI
Tensile Strength ASTM C-307	825 PSI
Flexural Strength ASTM C-580	1,800 PSI
Taber Abrasion ASTM D-4060	70 mg.
Tensile Bond Strength ASTM D-4541	Cohesive failure of Concrete
Density	130lb/cu.ft.
VOC	43 g/l (calculated)

SPECIFICATIONS

Shock-Crete shall be a 1/4" – 3/8" thick, self-priming, aggregate filled, polyurethane floor topping as manufactured by Dudick, Inc. Application shall be according to the manufacturer's recommendations.

SHOCK-CRETE SYSTEM

The Shock-Crete system can only be applied to concrete or a previous layer of Shock-Crete or Shock-Crete SL. It will not bond to epoxy or other polymer systems.

Topcoat: The aggregate filled **Shock-Crete** system develops a cure strength approximately 2 times that of the concrete base to which it is applied. The monolithic topping exhibits excellent physical and mechanical strength and chemical resistance.

*SHOCK-CRETE PACKAGING

Component A 5 lbs.
Component B 4 lbs. 8oz.
Aggregate 48 lbs.

Premeasured units – Do Not Breakdown

ESTIMATING QUANTITIES AND ORDER BILL OF MATERIAL

APPROXIMATE SQUARE FEET PER UNIT	
Shock Crete	
Topcoat	19-21 ft.² @ ¼”

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

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 free of curing compounds and form release agents. Surface texture should be similar to 40-60-grit sandpaper or the visual standard, CSP-5 from the International Concrete Repair Institute **with exposed pea gravel**. The prepared surface should have a nominal 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 with the first mechanical preparation procedure.

APPLICATION SPECIFICATIONS

Temperature of the material and concrete substrate must be between 50ºF and 90ºF. Consult Dudick, Inc. for temperatures below 50°F.

Relative humidity must not exceed 90%.

Substrate temperature must be 5ºF above the Dew Point.

Application of **Shock-Crete** in direct sunlight may lead to blistering, pinholes, or wrinkling due to outgassing of air in the concrete and high substrate temperatures. Shading or evening application may be required. Consult a Dudick representative.

POT LIFE AND CURE TIME			
Substrate Temperature	Pot Life	Working Time	Cure Time Foot Traffic
50ºF	30 min.	20 min.	12-16 hrs.
70ºF	15 min.	10 min.	6-8 hrs.
90ºF	8-9 min.	7 min.	3-4 hrs.

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

Recoat Time: Material must be abraded prior to recoating with Shock-Crete if it has set longer than 48 hours.

INSTALLATION SPECIFICATIONS

MIXING EQUIPMENT

When deciding on mixing equipment, keep in mind that **Shock-Crete has a 10 minute working time at 70ºF.**

A 10-15 gallon rotating drum container is recommended. It is portable and easy to clean. The stationary mixing paddle provides both radial and axial action, scraping both the side and bottom of the container.

A mortar mixer can be used as long as it contains blades for uniform mixing.

SHOCK–CRETE INSTALLATION

Mixing Sequence: Component A should be thoroughly mixed to redisperse any pigments or fillers that may have settled prior to adding **Component B**. Add the premeasured **Component A** to the mixer followed by the addition of the premeasured **Component B** and mix for one minute.

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Slowly add the aggregate and continue mixing until all of the aggregate has been totally wetted. **DO NOT REDUCE AGGREGATE. MIX FULL UNITS.**

The mixed material shall be placed **immediately** after mixing. A bead of mixed material shall be poured out and then trowelled to the approximate thickness required. This should be done before finishing. Then finish using large sweeping motions and keeping the trowel as flat as possible. At this point it will be easy to see any defects in the surface.

A final sweep provides a uniform finish and brings a little more liquid to the surface which fills any voids in the aggregate. The next mix should be laid as above. Extra care should be taken in the transition between mixes. Final sweeps should take in the previous mix to keep the finish uniform. Do not over trowel.

CLEANING

Use **S-10 Cleaning Solvent, MEK or Acetone** to clean tools and equipment.

SHIPPING

All Shock-Crete products are water emulsions and therefore are subject to freezing. Both the liquid and aggregate components need to be shipped and stored in environments that will protect against freezing. Dudick, Inc. recommends a minimum temperature of 50°F for all components.

STORAGE

See notes in shipping section concerning minimum 50°F storage temperature. **Shock-Crete** components will have a six-month shelf life.

SAFETY

M.S.D.S: Material Safety Data Sheets must always be read before using products. Shock Crete 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 **Shock-Crete** 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.
- Safety glasses, gloves, and suitable protective clothing must be worn at all times during application.
- If contact with hardeners occurs, flush the skin with flowing water. **Shock-Crete** liquid can be removed with **S-l0 Cleaning Solvent**, Acetone, MEK, or lacquer thinner.
- 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.

4/19/13