



## SHOCK-CRETE VERTICAL

### Catalog Literature

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#### TROWEL APPLIED WATER DISPERSED POLYURETHANE WALL LINING, 3/16" (4.8 mm)

##### FEATURES

Thermal Shock Resistant  
Excellent Chemical Resistance  
Low Odor  
Fast Setting  
Low Temperature Cure  
USDA Compliant  
100% Reactive  
Anti Bacteria & Fungus Growth  
Resistant to Steam Cleaning  
Coefficient of Thermal Expansion  
Similar to Concrete  
VOC Compliant  
Cove Base Material

##### RECOMMENDED APPLICATIONS

Breweries and Beverage Plants  
Food Processing Plants  
Meat Packaging Plants  
Packing Plants  
Machine Shops

##### CHEMICAL RESISTANCE

Organic Acids  
Dilute Inorganic Acids  
Alkali Solutions  
Salts  
Oils  
Aliphatic Solvents

##### TEMPERATURE LIMITS

-120°F to 220°F  
100°F – Continuous Chemical Exposure  
220°F – Occasional Steam Cleaning

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

##### PHYSICAL PROPERTIES

Coefficient of Thermal Expansion	1.1 x 10 <sup>-5</sup>
ASTM C-531	
Compressive Strength	7,000 PSI
ASTM C-579	
Modulus of Elasticity	1.1 x 10 <sup>5</sup> PSI
ASTM C-579	
Tensile Strength	1000 PSI
ASTM C-307	
Flexural Strength	2,200 PSI
ASTM C-580	
Taber Abrasion	70 mg.
ASTM D-4060	
Tensile Bond Strength	Cohesive failure of Concrete
ASTM D-4541	
Density	130lb/cu.ft.

##### SPECIFICATIONS

**Shock-Crete Vertical** shall be a 3/16" thick, aggregate filled, polyurethane wall lining as manufactured by Dudick, Inc. Application shall be according to the manufacturer's recommendations.

##### THE SHOCK-CRETE VERTICAL SYSTEM

**Shock-Crete Vertical** uses a moisture-tolerant primer and an aggregate filled polyurethane topcoat to achieve a strongly bonded monolithic lining with excellent physical and mechanical strength and chemical resistance.

**Primer:** The prepared concrete surface must be primed to provide the “wetting out” required for good bonding. **Shock-Crete Vertical** should be applied while the primer is still “**tacky**”.

**Topcoat:** The aggregate filled **Shock-Crete Vertical** 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.

**ESTIMATING QUANTITIES AND ORDER BILL OF MATERIAL**

SQUARE FEET PER GALLON	
	CONCRETE
PRIMER	150-200
Shock-Crete Vertical	
Topcoat 3/16”	26-28 sq. ft./unit
S-10 Solvent	500

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 be dry and 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 product application using the Plastic Sheet Test, 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.

**APPLICATION SPECIFICATIONS**

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

Relative humidity must not exceed 90%.

Substrate temperature must be 5°F above the Dew Point.

**SHOCK-CRETE VERTICAL PRIMER MIX RATIO**

Component A 1 gal.  
Component B 1 gal.

**PRIMER POT LIFE**

TEMPERATURE	POT LIFE
50°F	90 min.
75°F	60 min.
90°F	30 min.

**PRIMING**

**Concrete:** Mix the pre-measured units of **Primer Component A with Component B**. Prime all concrete surfaces at 3-4 mils WFT. The topcoat should be applied over primer that is “**tacky**”.

**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.

**SHOCK-CRETE VERTICAL PACKAGING**

Component A 4 lbs. 14 oz.  
Component B 4 lbs. 6 oz.  
Aggregate 48 lbs.

Application of **Shock-Crete Vertical** 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.

### SHOCK-CRETE VERTICAL POT LIFE

POT LIFE AND CURE TIME			
	Pot Life	Working Time	Cure Time
50°F	30 Min	20 Min	12-16Hrs
70°F	15 Min	10 Min	6-8 Hrs
90°F	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 Vertical if it has set longer than 48 hours.**

### INSTALLATION SPECIFICATIONS

#### MIXING EQUIPMENT

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

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 VERTICAL 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.

Slowly add the aggregate and continue mixing until all of the aggregate has been totally

wetted. **DO NOT REDUCE AGGREGATE. MIX FULL UNITS.**

When mixing is complete, apply to the “tacky” primer using a steel trowel to the vertical surfaces at approximately 3/16” in thickness. A light brushing will close any voids and feather any edges. Cove bases can be completed at this time.

### CLEANING

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

### SHIPPING

Refer to Material Safety Data Sheets.

### 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 may occur.

Store all products in a cool, dry area away from open flames, sparks or other hazards.

When stored in their original, unopened containers at 50°F-75°F, **Shock-Crete Vertical** components have a 12-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.** **Shock Crete Vertical** lining is 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 Vertical** lining 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, flush the skin with flowing water. **Shock-Crete Vertical** liquid can be removed with **S-10 Cleaning Solvent, Acetone, or MEK.**
- 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 application of its products by its employees or sub-contractors shall be performed in a workmanlike manner. Dudick's obligation under this warranty shall be the repair to and replacement of any applications 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

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