SHOCK-CRETE SL

Specifications

This specification covers the surface preparation, application instructions, product data sheets and other conditions and requirements essential for the successful application and performance of the flooring overlay and coving system herein stated. Close adherence to all such instructions and conditions is required.

- This specification defines the recommended practices for surface preparation and application of Dudick, Inc. Shock-Crete SL.
- Application under this specification must be done in accordance with the standard installation procedures and manufacturer's product literature.
- All questions regarding the selection, installation or intended end use should be directed to Dudick, Inc., Streetsboro, Ohio.

Dudick, Inc must approve any alterations from this specification due to unforeseen or unknown field conditions.

Dudick, Inc. must approve applicator of material prior to surface preparation and coating application.

APPLICABLE STANDARDS AND TEST METHODS

Shock-Crete SL System typical physical properties and test methods are provided in Dudick, Inc. Product Literature.

Compressive Strength ASTM C-579	7300 PSI
Tensile Strength ASTM C-307	825 PSI (12-14MPa)
Taber Abrasion ASTM D-4060 CS-17 Wheel 1000 revolutions	70 mg.
Flexural Strength ASTM C-580	1800-2000 PSI (17-19MPa)
VOC ASTM D-3960	0
Tensile Bond Strength ASTM D 4541	Cohesive Failure of Concrete
Fungus Resistance U.S.Mil Std. 810E	No Growth

Coefficient of Thermal Expansion	
ASTM C-531	1.1×10^{-5}
Modulus of Elasticity	
ASTM C-579	1.7×10^{5} PSI

PROJECT/SITE CONDITIONS

- Surface temperature, air temperature and material temperature should be between 50°F (10°C) and 90°F (32°C). These conditions are required for all parts of the application process of Dudick, Inc. Systems.

- Do not apply if the relative humidity is more than 90% or the surface temperature is less than 5% above the dew point of the air in the working area.

- Adequate ventilation is required during installation.

SYSTEM COMPONENTS

Materials for Dudick, Inc. Shock-Crete System include the following in unit packaging:

• Component A	8 lbs.
• Component B	7 lbs. 5 oz.
• Aggregate	40 lbs.
• Media-Aluminum oxide	Grit selected by owner
• Total Unit (Theoretical)	35-40 ft^2 per unit @ 3/16” Or 50 ft^2 per unit @ 1/8”

INSPECTION

- Environmental and site conditions shall be documented as suitable for application and curing.

- Surface shall meet all acceptable conditions prior to proceeding.

- Any and all deficiencies shall be reported in writing.

SURFACE PREPARATION

- Surface must be free from all dirt, dust, grit, oil, sealers, concrete laitance and chemical contamination prior to applying Dudick, Inc. Shock-Crete System.

- Surface preparation shall be by degreasing and abrasive blasting and/or mechanical abrasion where needed to provide a minimum visual standard of CSP-3 from the

International Concrete Repair Institute. The prepared surface should have a nominal tensile strength of 225 psi per ASTM D-4541.

- Concrete must be inspected for bugholes, air pockets, pinholes, tie holes, from burrs, honeycombs and cracks prior to applying a Shock-Crete System.

- Shock-Crete SL must be allowed to fully cure prior to any traffic. No individuals shall be permitted in areas during application and until surface has cured. A minimum of 24 hours at 70°F is required prior to opening the floor system to traffic.

- Compliance with OSHA, EPA, State and Local regulations or applicable agencies is mandatory when using these products.

- Consult Dudick, Inc. Product Literature for additional surface preparation information.

FLOORING APPLICATION

- Prior to application of Shock-Crete all concrete substrates must be checked for moisture prior to product application using the Plastic Sheet Test ASTM D-4263.

- All Concrete shall receive a clean rinse with water and have PH checked with litmus paper to ensure neutrality (PH-7 or higher) and allowed to thoroughly dry, if necessary repeat.

- Area to be topped must be thoroughly degreased before topping.

- Concrete must be abrasive blasted and/or mechanically abraded so as to remove surface laitance and other contaminants. Concrete must be free of curing compounds and form release agents. Surface texture should be a minimum visual standard, CSP-3 from the International Concrete Repair Institute. The prepared concrete surface should have a nominal tensile strength of 225 PSI per ASTM D-4541.

- This material must be chilled/cooled for application at 90°F or higher. Buckets of dry ice may be required for cooling. Shock-Crete has a 10-minute working time at 70°F.

- A 10-15 gallon rotating drum container is recommended. A mortar mixer can be used as long as it contains blades for uniform mixing.

- BODY COAT - Component A should be thoroughly mixed to redisperse any pigments or fillers that may have settled. Add Component B and mix thoroughly for one minute. Slowly add the aggregate and continue mixing until all of the aggregate has been totally settled. Total mixing time should not exceed 3 minutes.

- Mixed material must be placed immediately. A bead of mixed material should be poured out and then trowelled to the approximate ¼" thickness specified. Keeping the trowel flat and using a large sweeping motion, the Shock-Crete will be finished, DO NOT OVERTROWEL, seed to rejection with 36 aluminum oxide or grade to be approved by owner. Sweep off excess aggregate when dry.

Special Detail Requirements

All existing Coving and Cove sealant material shall be removed and thoroughly chased out. All gaps over ½' deep shall be filled with closed cell backer rod. Area to be coved shall be scarified or abraded 6 inches up vertical and 2 inches out onto floor. All areas abraded shall receive 1 coat Primer 67. When primer is tacky, trowel apply Dudick Caulk PSC, to form chime over primed area. Note – or vertical applications and fill, add cabosil to a rate of ½ pound per mixed gallon to prevent slumping. Chime shall not be over 2 inches in thickness and flooring shall be notched back to provide clean termination point. Any excess shall be sanded smooth. See manufacturer data for additional application and product data.

Steel floor plate dividing room K-8 and k-7

Area shall be abraded and joints on either side thoroughly chased out. Joint on either side shall be keyed out and into adjacent flooring to provide smooth termination point. Prime steel plate with Dudick Primer 67. When primer is tacky, trowel apply from notched back joint and floor topping in K-8 over steel plate and into notched back joint in K-7 for even transitions. Do not exceed over 1 inch in thickness for this transition. Allow 24 hours before traffic.

Concrete-Acid Brick Termination K-8

Brick area abutting existing concrete floor should be removed 2 feet from existing concrete. Area should be re-poured with concrete to level and allowed to cure. Upon curing, abrade surface to CSP-3 standard and notch into adjoining brick. Top with Shock-Crete SL at a rate of 3/16 up to edge of new pour and brick. Prime notched back brick joint with Primer 67 and fill joint with Dudick Caulk PSC to level, allow to dry and sand smooth.

Floor Termination from K-8 into G-12

This area should be filled to level with concrete, allowed to cure and abraded to CSP-3 standard. Apply Dudick Shock-Crete SL at a rate of 3/16. Notchback existing concrete and run material into existing concrete. Allow to dry, sand and smooth.

Misc. Concern

Spalled area around defoamer and piping should be chased out and filled with Shock-Crete Standard to within ¼ inch of surface, piping should be abraded and primed with Primer 67 and remaining cavity should be filled with Caulk PSC. Please consult manufacturers literature for additional product data or application information.

CONTRACTORS QUALIFICATION

- The material manufacturer shall have a minimum of two years of experience with the successful contractor in the application of the specified floor system, or have a Dudick Technical Rep on site during application.

Inspection/Service Technician Visit

A qualified manufacturer's representative shall do periodic inspections. This will include surface preparation, and the application of the overlayment material. Representative will also conduct

the final inspection. All corrective work must be done at the contractor's expense and re-inspected to confirm that the deficiencies have been corrected. No warranty of performance is given expressed or implied. Contact Scott Russell, Dudick representative for more details regarding material application at 309-764-5430.

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