

## PHYSICAL PROPERTIES

<b>VOC</b>	.....	<5 g/L
<b>MIX RATIO</b>	.....	2A:1B
<b>COVERAGE RATE</b>	.....	<b>1/4"</b> : 20 ft <sup>2</sup> /kit
<b>APPLICATION TEMP</b>	.....	50° - 90°F
<b>POTLIFE</b> 1 Gal mass @ 75°F	.....	20 Minutes
<b>DRY TIME</b> @ 75°F	.....	5-12 Hours
<b>RECOAT WINDOW</b>	.....	12-24 Hours
<b>FULL CURE</b>	.....	7 Days
<b>PACKAGING</b>	.....	1.5 Gal Kit 3 Gal Kit 15 Gal Kit 150 Gal Kit

## MECHANICAL PROPERTIES

<b>COMPRESSIVE STRENGTH</b> ASTM C579	.....	11,500 p.s.i
<b>TENSILE STRENGTH</b> ASTM D638	.....	8,800 p.s.i
<b>ELONGATION</b> ASTM D638	.....	5%
<b>ADHESION</b> ASTM D7234	.....	>410 p.s.i
<b>HARDNESS</b> ASTM D2240	.....	80

## CHEMICAL RESISTANCE

Refer to CrownTech Chemical Resistance Guideline Technical Bulletin No. 9

## PRODUCT DESCRIPTION

CrownStone TD, System No. 311 is a 100% Solids, 100% reactive, moisture-insensitive non shrink, 3 component, Epoxy Polymer Mortar formulated to be hand or power-troweled applied at a typical thickness of 3/16 - 1/4 in. Crown TD cures to very tough and durable, dense mortar for applications demanding a superior abrasion wear and impact resistance.

## TYPICAL USES

- Shallow, Partial & Full Depth Patching
- To resurface old worn concrete
- Pitching or to pitch concrete areas for discharging to drains
- For heavy-duty protected overlay floor
- Great restoration system to resurface and waterproof

## BENEFITS

- Complies with USDA, FDA, FSMA. See Crown Polymers Technical Bulletin: 3 Food and Beverage Compliance.
- Slip Resistance (ADA) See Crown Polymers Technical Bulletin: 4 Coefficient of Friction.
- LEED requirements. See Crown Polymers Technical Bulletin: 5 LEED information
- Cures to an inert finish. See Crown Polymers Technical Bulletin: 2 VOC Compliance

## COLORS



Clear

## LIMITATIONS

- Higher temperatures will result in shortened working times and faster drying time.
- Use 310 as a primer first
- Dry aggregates only
- Use 8303 CrownShield Moisture Barrier when MVT exceeds 3 lbs. or 80% RH
- May amber with UV Exposure
- Do not thin

## SHELF LIFE

1 Year from Date of Manufacture provided unopened

## STORAGE

Store in a dry environment at room temperature and out of direct sunlight.

## DISCLAIMER

All technical bulletins, installation guidelines, guidelines, recommendations, statements, specifications, and technical data contained herein are based on information and tests. The accuracy and completeness of such tests are not guaranteed and are not to be construed as a warranty, expressed or implied. It is the responsibility of the user to document information and tests to determine the intent of the product for ones' own use. The application, job conditions and user assume all risks and liability resulting from use of the product, We do not suggest or guarantee any hazards listed herein are the only ones, which may exist, Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use the product. Recommendations or statements, whether in written or verbal, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and Crown Polymers makes no claim that these tests or any other tests accurately represent all environments. Not responsible for typographical errors.

## LIMITED WARRANTY

Crown Polymers warrants its products to be free of manufacturing defects and meets all Crown Polymers current published physical properties. Crown Polymers' sole responsibility shall be to replace the portion of any product proved to be defective. There are no other warranties by Crown Polymers of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. Crown Polymers shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty expressed or implied. In addition, no warranty or guarantee pertaining to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by applicator will be issued. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of substrate or structural defects are also excluded from limited warranty.

## APPLICATION EQUIPMENT

Personal Protective Equipment  
Jiffy Mixing Paddle & Drill or Concrete Mixer  
Box Screed  
Hand or Power Trowel  
Spike Shoes

## SURFACE DIAGNOSTICS

Concrete must be structurally sound and free of all contaminants and bond breakers. Test concrete compressive strength using a Schmidt or Rebound Hammer to ensure substrate has compressive strength of 3500 psi or higher.

Perform a PH test using concrete PH test strips or meter to ensure substrate PH is between 9-12.

Perform Moisture Test using either Calcium Chloride per ASTM F1869 or In-Situ Relative Humidity Probe per ASTM F2170 to ensure substrate has Moisture Vapor Emission Rate of 3 lbs or less and Relative Humidity of 80% or less. See CrownTech Bulletin 6: Moisture Mitigation Negative Side Moisture Barrier

If Moisture Vapor Emission Rate is above 3 lbs. but below 25 lbs. and relative humidity is above 80% but below 99% then apply 8303 Moisture Barrier Primer first at 16 mils with a coverage rate of 100 Ft<sup>2</sup>/ Gal.

## SURFACE PREPARATION

Use Mohs scratch test to determine concrete hardness for proper diamond bond selection.

Concrete should be mechanically profiled and prepared to produce a Concrete Surface Profile (CSP) level between #2 & #4 per ICRI Guideline no. 310.2R. See CrownTech Bulletin 1: Concrete Surface Preparation.

All perimeter areas of coating termination shall be masked for protection. Saw cut and key-in all termination points.

## SURFACE REPAIR

All depressions, divots and cracks should be profiled and free of dust and contaminants. Repair surface imperfections to reduce the ability to see the defect through the coating.

Honor all dynamic (moving) joints, static joints may be filled, use dynamic joints as initiation and termination points during application process where needed.

## TEMPERATURE EVALUATION

Ambient and substrate temps should be above 50°F and a minimum of 5°F above Dew Point.

Product temps should be between 70-80°F.

Relative Humidity should not exceed 80%. See CrownTech Bulletin 7: Temperature & Relative Humidity

## REFER TO SAFETY DATA SHEETS (SDS) FOR SAFETY PRECAUTIONS.

SAFETY PRECAUTIONS MUST BE FOLLOWED  
DURING STORAGE, HANDLING AND USE.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

SHALL BE WORN AT ALL TIMES INCLUDING  
BUT NOT LIMITED TO LONG SLEEVE SHIRTS OR  
DISPOSABLE ARM SLEEVES, SAFETY GLASSES,  
DISPOSIBLE NITRILE GLOVES, AND PROPERLY  
FITTED NIOSH RESPIRATORS

ALL SOURCES OF IGNITION SHOULD  
BE TURNED OFF AND ENVIRONMENT  
SHOULD HAVE PROPER AND ADEQUATE  
VENTILATION DURING APPLICATION AND  
CURING PROCESS

MIXING AREA SHOULD BE PLACED ON OR IN  
CLOSE PROXIMITY TO PROJECT. AREA SHOULD  
BE SECURELY COVERED WITH PLASTIC,  
CARDBOARD OR TARP. STAGE MATERIALS,  
TOOLS AND CLEANING SUPPLIES IN MIXING  
AREA PRIOR TO APPLICATION PROCESS.

DO NOT MIX MORE MATERIAL THAN CAN BE  
APPLIED IN 10 MINUTES

## MIXING PROCEDURE

- 1** Pre-Mix B-Component in its respective container using Jiffy mixer and drill at low RPMs for 30 seconds to ensure components are fully suspended.
- 2** Pre-Mix A-Component in its respective container using clean Jiffy mixer and drill at slow speeds for 30 seconds or until thoroughly homogeneous.
- 3** Transfer A-component and B-component into a clean 5-gal bucket and mix for 1-2 minutes at low RPMs being sure to scrape sides of the bucket with a stir stick ensuring both components are thoroughly blended. Slowly add CS Trowel Blend sand at a rate of 1 part mixed resin to 7 parts CS sand aggregate and mix for 4 minutes until uniformly blended.

## COVERAGE RATE

20 Ft<sup>2</sup> / Kit @ 1/4"

## WORKING TIME

10-15 Minutes @ 75°F

WARMER AMBIENT, PRODUCT AND SURFACE  
TEMPERATURES WILL SHORTEN POTLIFE AND  
WORKING TIME.

## APPLICATION PROCEDURE

SURFACE SHOULD BE PRIMED WITH 310 CROWN  
STONE EPOXY FIRST

- 1** Pour a band of mixed material across the surface roughly 6-8" wide. Use box screed or trowel to gauge material across surface
  - Maintain wet edge
  - Always pour next mixed batch onto wet edge

EPOXY SETS FASTER IN MASS, MIXED MATERIAL  
SHOULD NOT REMAIN IN BUCKET

- 2** Finish surface using a flat trowel or power trowel
  - Do not overwork material

- ✓** Allow coating to dry 5-12 Hrs @ 75°F  
Do not force dry.  
Recoat: 12-24 Hrs

## SLIP RESISTANCE

Skid-Resistance – Field (in situ) Wet Dynamic  
Coefficient of Friction (DCOF), ANSI A326.3. See Crown  
Polymers Technical Bulletin: 4 Coefficient of Friction.

## CLEAN-UP

Clean-up mixing station, tools, and equipment as required. Use acetone, a VOC exempt solvent, for cleaning up. Observe all legal, and health, and safety precautions when handling or storing solvents and materials, particularly in confined spaces. Make sure the working areas are well ventilated at all times during placement and curing time.

## DISPOSAL

Dispose of empty packaging and other waste in accordance with federal, state, provinces and local regulations.

## MAINTENANCE

Inspect the installed floor by spot cleaning and spot repairing the damaged or cracked areas. To prolong life of the flooring system, a daily maintenance program is highly recommended to ensure the floor is safe for its intended purposes. See Crown Polymers Technical Bulletin: 8 Care and Maintenance.

## TECHNICAL SUPPORT

For questions, contact a Crown Polymers Representative. Additional Support Documents are available from Crown Polymers, including brochures, application guidelines, videos and more. Visit [Crownpolymers.com](http://Crownpolymers.com) or contact Crown for additional resources