

PHYSICAL PROPERTIES

VOC	.....	<5 g/L
SOLIDS CONTENT	.....	100%
MIX RATIO	.....	Full Kit
COVERAGE RATE	.....	12 f ² /kit
APPLICATION TEMP	.....	50°- 90°F
POTLIFE 1 Gal mass @ 75°F	.....	15-20 Min
DRY TIME @ 75°F	.....	6-8 Hours

MECHANICAL PROPERTIES

COMPRESSIVE STRENGTH ASTM C579	.....	5,000 p.s.i
FLEXURAL STRENGTH ASTM C580	.....	2,500 p.s.i
TENSILE STRENGTH ASTM C307	.....	720 p.s.i
SHRINKAGE ASTM C531	.....	0.20%
ADHESION TO CONCRETE ASTM D7234	.....	>400 p.s.i
SHORE D HARDNESS ASTM D2240	.....	78-80
IMPACT RESISTANCE ASTM D2794	.....	>160 in/Lbs
FLAME SPREAD/ NFPA ASTM E648	.....	Class 1
ABRASION RESISTANCE ASTM D4060	.....	70 mg Loss

CHEMICAL RESISTANCE

Refer to CrownTech Chemical Resistance Guideline Technical Bulletin No. 9

PRODUCT DESCRIPTION

838 CrownCrete U Trowel Grade is a three-part urethane polymer concrete trowel grade product. It is a high density packed heavy duty system applied at 3/8" thick depending upon design requirements. It is formulated to withstand the aggressive environments offering excellent chemical resistance and superior thermal shock resistance with top of the line functional performances of the CrownCrete U family. It is VOC Compliant in all states and provinces in North America

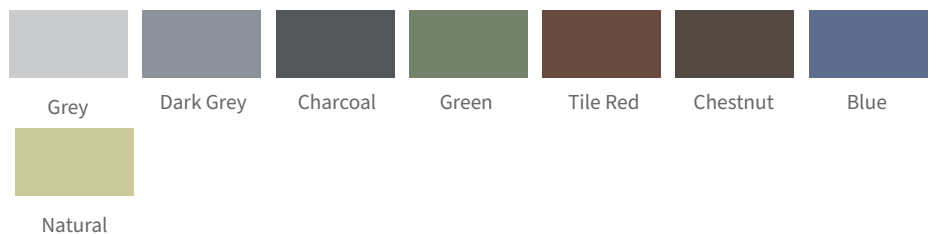
TYPICAL USES

- Animal Care and Housing
- Commercial Bakeries and Kitchens
- Hospital and Health Care Facility Floors
- Manufacturing and Warehouse Floors
- Pharmaceutical Floors
- Automotive Show Room and Repair Areas
- Food, Beverage and Spirits Processing
- Laboratories and Research Floors
- Mechanical Equipment Room Floors

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



LIMITATIONS

- Higher temperatures will result in shortened working times and faster drying time.
- Color may vary due to batch-to-batch variation, always "box" different batches to avoid it.
- Use only Full Kits, Do Not split kits
- May amber with UV Exposure
- Don't use damaged or wet C-Component

SHELF LIFE

1 Year on Liquids and 6 Months on Aggregate 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
Mortar Mixing Paddle
Drill
3/8" Cam Rake
Spike Roller
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 20 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 20 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 Ft²/ 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

1 Pre-Mix B-Component in its respective container using Jiffy mixer and drill at slow speeds for 1 minute until pigment is uniform.

IF USING MULTIPLE BATCHES, IT IS BEST TO BOX ALL B-COMPONENTS TOGETHER THEN SEPARATE BACK INTO INDIVIDUAL CONTAINERS TO ENSURE EVEN PIGMENTATION.

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 metal 5-gal bucket and mix for 1 minute then slowly add C-Component gradually while continuously mixing for 2-3 minutes being sure to scrape sides of the bucket with a stir stick ensuring both components are thoroughly blended

COVERAGE RATE

12 Ft² / Kit @ 3/8"

WORKING TIME

15 Minutes @ 75°F

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

APPLICATION STEPS

1 Pour a band of mixed material across the surface roughly 4-6" wide. Use 3/8" Cam Rake to gauge material across surface

SETS UP QUICKER IN MASS, MIXED MATERIAL SHOULD NOT BE LEFT SITTING IN BUCKET FOR PERIODS OF TIME

2 Back roll the surface with 18" spiked roller by walking into the wet material wearing spike shoes and roll the surface wall to wall with overlap perpendicular to your first pass to release air entrapment

3 If broadcasting sand or colored quartz then do so into wet coating at a rate of 0.8 lbs/ ft²

✓ Allow coating to dry 6-8 Hrs @ 75°F
Light Traffic: 24 Hours
Heavy Traffic: 48 Hours
Equipment Traffic: 72 Hours

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 or contact Crown for additional resources