818 CrownCrete U 1/8”

Technical Data Sheet (TDS)

PHYSICAL PROPERTIES

SOLIDS CONTENT	.....	100%
MIX RATIO	.....	Full Kit
COVERAGE RATE	.....	Neat: 35 ft²/kit
		Full Broadcast: 50 ft²/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	.....	8,800 p.s.i
FLEXURAL STRENGTH ASTM C580	.....	5,000 p.s.i
TENSILE STRENGTH ASTM C307	.....	1,450 p.s.i
SHRINKAGE ASTM C531	.....	0.30%
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

818 CrownCrete U 1/8” Self-Leveling is a three-part urethane polymer concrete highly flowable product. It is a medium duty self-leveling material applied at 1/8” thickness using 1⁄2” v-notched rubber squeegee. The system can withstand aggressive chemical attack, thermal shock resistance, and high impact resistance. It is designed to be use as an underlayment providing superior functional subfloor for other polymeric toppings. It is VOC Compliant in all states and provinces in North America

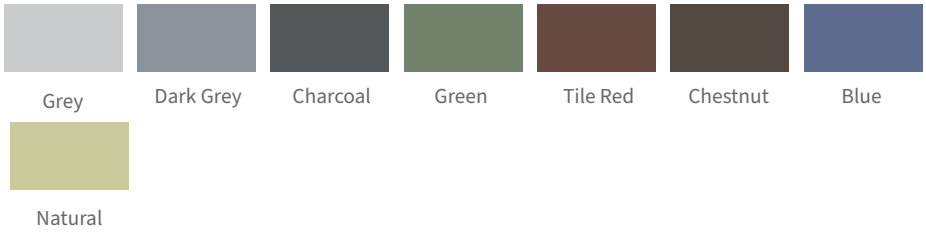
TYPICAL USES

- Aircraft Hangars & Maintenance Floors
- Automotive Show Room and Repair Areas
- Commercial Bakeries and Kitchens
- Hospital and Health Care Facility Floors
- Laboratories and Research Floors
- Manufacturing and Warehouse Floors
- School & Universities
- Pharmaceutical Floors

BENEFITS

- Complies with USDA, FDA, FSMA. See Crown Polymers Technical Bulletin: 3 Food and Beverage Compliance.
- LEED requirements. See Crown Polymers Technical Bulletin: 5 LEED information
- Cures to an inert finish. See Crown Polymers Technical Bulletin: 2 VOC Compliance

COLORS



Grey, Dark Grey, Charcoal, Green, Tile Red, Chestnut, Blue, Natural

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 Powder from Date of Manufacture provided unopened

STORAGE

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

APPLICATION EQUIPMENT

Personal Protective Equipment
Mortar Mixing Paddle
Drill
1/2" V-Notched Squeegee
Loop 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 15 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 15 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 #3 & #5 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 DISPOSIBLE 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 continously 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

35 Ft² / Kit @ 1/8" Neat
50 Ft² / Kit @ 1/8" Full Broadcast

COVERAGE RATE MAY VARY DEPENDING ON SUBSTRATE CONDITION

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 1/2" V-Notched Squeegee 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 a loop 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

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