3/16" CrownCrete Urethane Cement System

Technical System Sheet (TSS)

8175 Pigmented Polyaspartic	•••	160 Ft²/Gal
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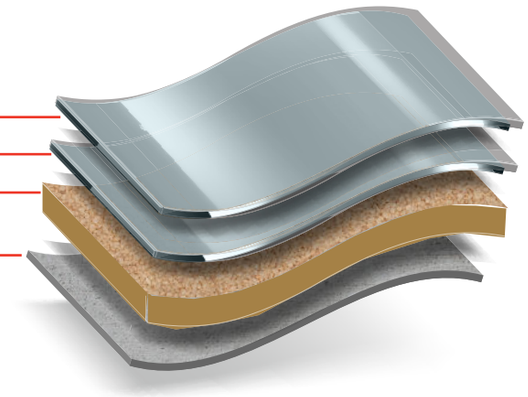
818 CrownCrete-U	•••	60 Ft²/Kit
Prepared Concrete	•••	CSP 2-4



OPTIONAL COMPONENTS

• **Moisture Mitigation Primer :**
8303 CrownShield™ Clear 100 ft²/gal @ 16 mils

• **Waterproofing & Crack Suppression Membrane :**
8502 CrownFlex Clear 40 ft²/gal @ 40 mils

• **Cove Binder :**
811 CrownCrete-U Cove 35 lf/gal @ 6”

*For complete details refer to each optional components Technical Data Sheet (TDS).

MECHANICAL PROPERTIES

For complete details refer to each components Technical Data Sheet (TDS)

CHEMICAL RESISTANCE

Refer to CrownTech Chemical Resistance Guideline Technical Bulletin No. 9

SYSTEM DESCRIPTION

CrownCrete-U Self-Leveling Urethane Cement System is a heavy-duty gloss finish flooring system with an overall nominal thickness of 187 mils (3/16”). It is designed to withstand thermal shock, impact, medium traffic and chemical exposure. It is comprised of 818 CrownCrete-U Self-Leveling Urethane Cement, single broadcast of natural quartz, 8175 CrownPro Pigmented Polyaspartic grout coat and topcoat. It is SCAQMD Compliant for Industrial Use only.

TYPICAL USES

- Animal Care and Housing
- Automotive Maintenance & Repair
- Commercial Bakeries and Kitchens
- Food & Beverage Processing
- Hospital and Health Care Facility Floors
- Laboratories and Research Floors
- Manufacturing Facility Floors
- School & University Floors
- Pharmaceutical & Vivarium Floors
- Meat & Poultry Processing

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

White, Light Grey, Med Grey, Dark Grey, Charcoal, Black, Light Tan, Tan

Sand Beige, Brown Stone, Tile Red

DISCLAIMER

LIMITED WARRANTY

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3/16" CrownCrete Urethane Cement System

Application Guide

APPLICATION EQUIPMENT

Personal Protective Equipment
Jiffy Mixing Paddle
Slow Speed Drill
1/2" V-Notched Squeegee
18"x3/8" Nap Roller Cover
8-12 Mil Notched Squeegee
4" Chip Brush
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 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

SURFACE REPAIR

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

TEMPERATURE EVALUATION

Ambient and substrate temps should be between 50-90°F and a minimum of 5°F above Dew Point.
Product temps should be between 70-80°F.
Relative Humidity should not exceed 85%.
See CrownTech Bulletin 7: Temperature & Relative Humidity

REVIEW SAFETY DATA SHEETS FOR PRECAUTIONS

ENVIRONMENT SHOULD HAVE PROPER AND ADEQUATE VENTILATION DURING APPLICATION AND CURING PROCESS

Do not mix more material than can be applied in 10 minutes

818 MIXING PROCEDURE

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

818 COVERAGE RATE

60 Ft²/Kit @ 1/8" Full Broadcast

818 WORKING TIME

15 Minutes @ 75°F

Warmer ambient, product and surface temperatures as well as higher relative humidity will shorten potlife and working time.

818 APPLICATION PROCEDURE

1. Pour a band of mixed material across the surface roughly 4-6" wide. Use 1/8" Cam Rake or 1/2" V-Notch squeegee to gauge material across surface
   • Honor all joints and use as termination points as needed

Mixed material sets quicker in mass and should not be left in bucket

2. Back roll the surface with 18" 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. Broadcast Natural Quartz to rejection into wet coating at a rate of 0.7 lbs/ ft²
   • Natural Quartz will sink into wet coating. If shiny wet areas are apparent broadcast more natural quartz

✓ Allow coating to dry 6-8 hours then remove all excess quartz with push broom and vacuum surface thoroughly.

PRIOR TO MIXING 8175 POLYASPARTIC:

BE SURE ALL PILOT LIGHTS AND SOURCES OF IGNITION ARE SHUT OFF.

RESPIRATORS WITH ORGANIC VAPOR CARTRIDGES ARE RECOMMENDED TO BE WORN AND ENVIRONMENT SHOULD HAVE PROPER AND ADEQUATE VENTILATION DURING APPLICATION AND CURING PROCESS

8175 MIXING PROCEDURE

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

8175 COVERAGE RATE

160 Ft² / Kit

8175 WORKING TIME

15 Minutes @ 75°F & 50% RH

Warmer ambient, product and surface temperatures and higher relative humidity will shorten potlife and working time.

8175 APPLICATION PROCEDURE

1. Cut-in stem walls using a 4" chip brush. Do not work edges more than 10 minutes ahead of main body of the floor.

2. Pour a band of mixed material across the surface roughly 4-6" wide. Use 8-12 mil notched squeegee to gauge material across surface
   • Maintain wet edge
   • Do not allow more than 10 mins ahead of next mixed batch.
   • Always pour next mixed batch on wet edge

3. Back roll the surface with 18" x 3/8" nap roller by walking into the wet material wearing spike shoes and roll the surface wall to wall with overlap perpendicular to your first pass
   • Do not overwork material

✓ Allow coating to dry and apply secondary coat in same fashion within 12 hours or abrading surface with 100 grit screen will be required.
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