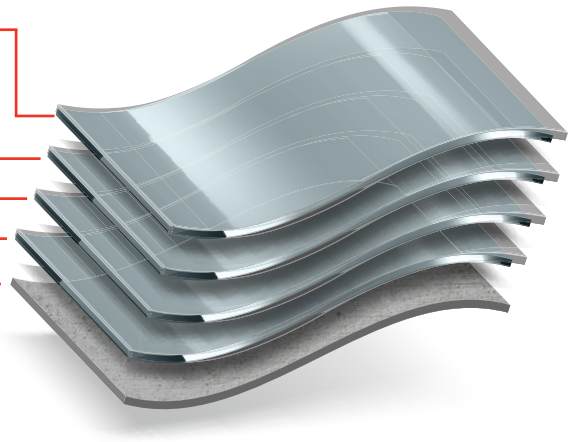
Crown POLYMERS
ADVANCED FLOOR COATINGS

60 Mils CrownCoat Mechanical Room System

Technical System Sheet (TSS)

320 CrownShield Pigmented	•••	160 Ft²/Gal
320 CrownShield Pigmented	•••	160 Ft²/Gal
8502 CrownFlex Pigmented	•••	80 Ft²/Gal
8502 CrownFlex Pigmented	•••	80 Ft²/Gal
Prepared Concrete	•••	CSP 2-4



OPTIONAL COMPONENTS

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

• **Cove Binder :**
8503 CrownFlex Thixotropic Epoxy 35 lf/gal @ 6”

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

PRODUCT SUBSTITUTIONS

• **Chemical Resistance :**
Substitute 320 CrownShield™ with 8320 CrownShield™

• **Low Viscosity :**
Substitute 320 CrownShield™ with 8318 CrownShield™

• **Novolac :**
Substitute 320 CrownShield™ with 7350 AcidShield

*For complete details refer to each optional components 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

CrownCoat Mechanical Equipment Room Flooring System is a high-build system placed at a nominal thickness of 60 mils and designed for durability to withstand impact and weight of heavy equipment and features chemical, abrasion, bacteria and water resistance. Comprised of 8502 CrownFlex waterproofing & crack supression menbrane as a base and build coat and sealed with 320 CrownShield™ General Purpose epoxy as a seal and final topcoat. It is VOC Compliant in all states and provinces in North America.

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
- Garage Floors, Patios & Pooldecks

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

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APPLICATION EQUIPMENT

Personal Protective Equipment
Jiffy Mixing Paddle
Slow Speed Drill
18"x3/8" Nap Roller Cover
15-20 Mil Notched Squegee
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.
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 20 minutes

8502 MIXING PROCEDURE

1. Pre-Mix A-Component in its respective container using Jiffy mixer and drill at slow speeds for 30 seconds to ensure all components are into suspension.
2. Pre-Mix B-Component in its respective container using clean Jiffy mixer and drill at slow speeds for 30 seconds or until thoroughly homogeneous.
3. Transfer B-component and A-component at a mix rate of 2A:1B by volume into a clean 5-gal bucket and mix for 2-3 minutes being sure to scrape sides of the bucket with a stir stick ensuring both components are thoroughly blended

8502 COVERAGE RATE

80 Ft² / Gal @ 20 mils

8502 WORKING TIME

20-30 Minutes @ 75°F (Standard)

Fast version as well as warmer ambient, product and surface temperatures will shorten potlife and working time.

8502 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.

Epoxy sets up quicker in mass, mixed material should not be left sitting in bucket for periods of time

2. Pour a band of mixed material across the surface roughly 4-6" wide. Use 15-20 mil notched squeegee to gauge material across surface
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
4. ✓ Allow coating to dry and reapply 2nd coat of 8502 CrownFlex in same manner within 24 hours or abrading surface with 100 grit screen will be required. After coating has dried and within 24 hours proceed to next steps

320 MIXING PROCEDURE

1. Pre-Mix A-Component in its respective container using Jiffy mixer and drill at slow speeds for 1 minute until pigment is uniform.
2. Pre-Mix B-Component in its respective container using clean Jiffy mixer and drill at slow speeds for 30 seconds or until thoroughly homogeneous.
3. Transfer B-component and A-component at a mix rate of 2A:1B by volume into a clean 5-gal bucket and mix for 2-3 minutes being sure to scrape sides of the bucket with a stir stick ensuring both components are thoroughly blended

320 COVERAGE RATE

120 Ft² / Gal @ 13.3 Mils wet film

320 WORKING TIME

20 Minutes @ 75°F

320 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 onto 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
4. ✓ Allow Coating to dry 6-8 hours Proceed to next steps within 24 hours or abrading surface with 100 grit screen will be required.

320 MIXING PROCEDURE

1. Pre-Mix A-Component in its respective container using Jiffy mixer and drill at slow speeds for 1 minute until pigment is uniform.
2. Pre-Mix B-Component in its respective container using clean Jiffy mixer and drill at slow speeds for 30 seconds or until thoroughly homogeneous.
3. Transfer B-component and A-component at a mix rate of 2A:1B by volume into a clean 5-gal bucket and mix for 2-3 minutes being sure to scrape sides of the bucket with a stir stick ensuring both components are thoroughly blended

320 COVERAGE RATE

120 Ft² / Gal @ 13.3 Mils wet film

320 WORKING TIME

20 Minutes @ 75°F

320 APPLICATION PROCEDURE

1. 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
2. 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
3. ✓ Allow Coating to dry
   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

DISCLAIMER

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