

## PHYSICAL PROPERTIES

SOLIDS CONTENT		100%
VOLUMETRIC MIX RATIO	•••••	2A:1B
COVERAGE RATE		80 ft²/gal 20 Mils
APPLICATION TEMP		50°- 90°F
<b>POTLIFE</b> 1 Gal mass @ 75°F		Standard: 30 Mins
		<b>Fast:</b> 20 Mins
<b>DRY TIME</b> @ 75°F		Standard: 8-10 Hours
		Fast: 5-7 Hours
RECOAT WINDOW		8-24 Hours
FULL CURE		7 Days
PACKAGING		1.5 Gal Kit 3 Gal Kit 15 Gal Kit

# **MECHANICAL PROPERTIES**

COMPRESSIVE STRENGTH ASTM D695	 2,500 p.s.i
TENSILE STRENGTH ASTM D638	 1,000 p.s.i
ELONGATION ASTM D638	 60%
ADHESION TO CONCRETE ASTM D7234	 >300 p.s.i
SHORE D HARDNESS ASTM D2240	 55-60

# **CHEMICAL RESISTANCE**

Refer to CrownTech Chemical Resistance Guideline Technical Bulletin No. 9

# PRODUCT DESCRIPTION

8502 CrownFlex is a two-component, low viscosity, 100% solids, semi-rigid epoxy membrane, and joint sealant and crack filler. It features a combination of excellent adhesion and elongation not available in general-purpose epoxy. It is formulated to provide the armoring of concrete joint edges and minimizing the deterioration of concrete joint/crack edge to impact. It is available in standard cure and fast cure. It is used on floors, joints, and cracks subjected to heavy foot traffic, forklift traffic, and chemical attack, specifically food acids. Also, it is used as an epoxy membrane for waterproofing and crack dampening under epoxy coating and flooring systems. It is VOC Compliant in all states and provinces in North America.

- "S" Standard Cure Hardener is designed for temperatures ranging from 50°F to 80°F (10°C to 27°C).
- "F" Fast Cure Hardener is designed for temperatures ranging from 40°F o 60°F (4°C to 16°C)

## **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**



# **LIMITATIONS**

- Higher temperatures will result in shortened working times and faster drying time.
- 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.

# APPLICATION EQUIPMENT

Personal Protective Equipment
Jiffy Mixing Paddle
Drill
18"x 3/8" Nap Shedless Roller Cover
15-20 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 psi 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 psi but below 25 psi 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  $50^{\circ}F$  and a minimum of  $5^{\circ}F$  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)

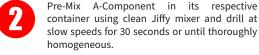
SHALL BE WORN AT ALL TIMES INCLUDING BUT NOT LIMITED TO LONG SLEEVE SHIRTS OR DISPOSIBLE ARM SLEEVES, SAFETY GLASSES, DISPOSIBLE NITRILE GLOVES, AND PROPERLY FITTED NIOSH RESPIRATORS ALL SOURCES OF IGNITION SHOULD
BE TURNED OFF AND ENVIRONMENT
SHOULD HAVE PROPER AND ADEQUATE
VENTILATION DURING APPLICATION 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

# **MIXING PROCEDURE**





Transfer A-component and B-component at a mix rate of 2A:1B by volume into a clean 5-gal bucket and mix for 2-3 minutes at low RPMs being sure to scrape sides of the bucket with a stir stick ensuring both components are thoroughly blended

#### **COVERAGE RATE**

80 Ft<sup>2</sup> / Gal @ 20 mils

COVERAGE RATE MAY VARY DEPENDING ON SUBSTRATE CONDITION

## **WORKING TIME**

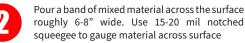
20-30 Minutes @ 75°F (Standard)

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

# **APPLICATION PROCEDURE**

Cut-in edges using a 4" chip brush. Do not allow wet edges to stand more than 10 minutes ahead of application of main body of floor.

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



- Maintain wet edge
- Always pour next mixed batch onto wet edge
- Do not apply heavier than recommended coverage rates
- 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 5-10 Hrs @ 75°F Do not force dry. Recoat: 8-24 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 or contact Crown for additional resources

## **DISCLAIMER**

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