

PHYSICAL PROPERTIES

VOC	.....	<5 g/L
SOLIDS CONTENT	.....	>99%
VOLUMETRIC MIX RATIO	.....	2A:1B
COVERAGE RATE	.....	160 ft ² /gal 10 Mils
APPLICATION TEMP	.....	Slow 70° - 90°F Med 50° - 70°F Fast 40° - 60°F
POTLIFE 1 Gal mass @ 75°F	.....	Slow 50 Mins Med 30 Mins Fast 15 Mins
DRY TIME @ 75°F	.....	8-10 Hours
RECOAT WINDOW	.....	12-24 Hours
FULL CURE	.....	7 Days
PACKAGING	.....	3 Gal Kit 15 Gal Kit

MECHANICAL PROPERTIES

TENSILE STRENGTH ASTM D2370	.....	4,000 p.s.i
ELONGATION ASTM D2370	.....	30-40%
GLOSS INDEX 60° ASTM D523	.....	75-80
SHORE D HARDNESS ASTM D2240	.....	75-80

CHEMICAL RESISTANCE

Refer to CrownTech Chemical Resistance Guideline Technical Bulletin No. 9

PRODUCT DESCRIPTION

CrownShield™ 8318 is a two-component, low viscosity, high build, epoxy binder designed for decorative and industrial flooring. It comes in three different cure speeds: Slow, Medium, and Fast. It can be applied directly to properly prepared concrete or over Crown Polymers 8303 CrownShield™ MVB (moisture mitigation primer). It is VOC Compliant in all states and provinces in North America.

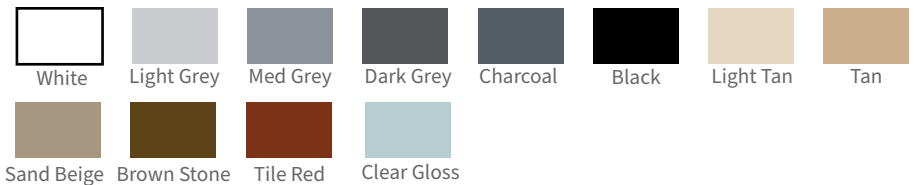
TYPICAL USES

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

BENEFITS

- Complies with USDA, FDA, Food Safety Modernization Act.
- VOC and EPA Compliant, and low odor during installation. Cures to an inert finish.
- Strong Chemical and Abrasion Resistance
- Slip Resistance (ADA)
- LEED® requirements.
- Strong and Tough Floor
- Designed for new floors and for resurfacing old floors

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 8303 CrownShield™ Moisture Barrier when MVT exceeds 3 lbs. or 80% RH
- May amber with UV Exposure
- Will not bridge cracking

SHELF LIFE

1 Year 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

Protective Clothing
Jiffy Mixing Paddle
Slow Speed Drill
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 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 85%. See CrownTech Bulletin 7: Temperature & Relative Humidity

MIXING

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

If using multiple batches, it is best to box all A-Components together then separate back into individual containers to ensure even pigmentation.

- 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 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 being sure to scrape sides of the bucket with a stir stick ensuring both components are thoroughly blended

COVERAGE RATE

160 Ft² / Gal @ 10 Mils wet film

WORKING TIME

Fast: 15-20 Minutes @ 75°F
Medium: 25-30 Minutes @ 75°F
Slow: 40-50 Minutes @ 75°F

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

APPLICATION STEPS

- 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 8-12 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

- ✓ Allow coating to dry.
Light Foot Traffic – 16 Hours
Item Placement – 24 Hours
Vehicular – 48 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

REVIEW SAFETY DATA SHEETS
FOR PRECAUTIONS