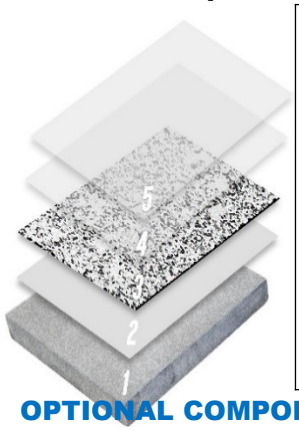
TECHNICAL SYSTEM SHEET CP TSS CEF 25 050

CrownFlake™ 8355 CrownShield® High Solids Pigmented Epoxy Receiving Coat and a Single Full Broadcast of 1/4 Inch Color Flake Flooring System. It is grouted with 8101 CrownSeal™ WB UV Stable Acrylic and 8175 CrownPro™ Polyaspartic UV Stable Top Coat, that is placed at a Nominal 50 Mils (1.27 mm).

DESCRIPTION

CrownFlake™ 8355 CrownShield® High Solids, Hugh Build, Pigmented Epoxy Receiving Coat and a Single Full Broadcast 1/4 Inch Color Flake Flooring System, with optional integral cove base. It is placed at a nominal 50 mils (1.27 mm). It is comprised of a self-priming receiving coat, color flake chips, a water based acrylic and top coated with a UV stable polyaspartic. It can be applied directly over Crown Polymers moisture mitigation primer. It is available with an optional integral cove base. It is also available with an optional fluid proofing and crack suppression membrane. It is VOC Compliant in all states and provinces in North America.



CrownFlake™ 8355 CrownShield® High Solids Pigmented Epoxy, Single Full Broadcast 1/4 Inch Color Flake Chip Flooring System, 50 Mils (1.27 mm.

1. **Concrete Substrate Profile – ICRI Concrete Surface Profile CSP 2 to CSP 4**
2. **Self-Priming Receiving Coat and Broadcast Color Flake – 8355 CrownShield® Pigmented, 160 sq. ft. (14.9 sq. m.) per gal (3.79 lt.) 10 mils (0.25 mm), and**
3. **Single Full Broadcast of SP638 Blended Colors or SP646 Blended Colors, 1/4 Inch Color Flake 0.15 lbs. to 0.20 lbs. per sq. ft (0.6 to 0.9 kg.).**
4. **Groat Coat – 8101 CrownSeal™ Clear 200 sq. ft. (18.9 sq. m.) 8 mils (0.20 mm)**
5. **Optional Top Coat – 8175-S CrownPro™ Clear 160 sq. ft. (14.9 sq. m.) 10 mils (0.25 mm)**

OPTIONAL COMPONENTS

- **Optional Moisture Mitigation Primer - 8303 CrownShield® Clear 100 sq. ft. (9.3 sq. m) 16 mils (0.41 mm)**
- **Optional Waterproofing & Crack Suppression Membrane - 8502 CrownFlex™ Clear 40 sq. ft. (3.72 sq. m) 40 mils (1.0 mm)**
- **Optional Cove Binder - 8503 CrownFlex™ Thixotropic Epoxy Opaque and SP638 Blend or SP646 Blended Color Flakes.**

Note: See individual Technical Data Sheets for information about each product.

TYPICAL USES

- **Automotive Show Room Floors**
- **Commercial Retail Floors**
- **Garage Floors**
- **Hospital and Health Care Facility Floors**
- **Laboratories and Research Floors**
- **Patio and Breezeway Floors**
- **Pharmaceutical Floors**
- **Pool Decks**
- **Schools and Universities Floors**

BENEFITS

- **Complies with USDA, FDA, Food Safety Modernization Act. See Crown Polymers Technical Bulletin: 3 Food and Beverage Compliance.**
- **Slip Resistance (ADA) See Crown Polymers Technical Bulletin: 4 Coefficient of Friction.**
- **LEED® and Green Seal® requirements. See Crown Polymers Technical Bulletin: 5 LEED and Green Seal Information.**
- **VOC and EPA Compliant, and low odor during installation. Cures to an inert finish. See Crown Polymers Technical Bulletin: 2 VOC Compliance. All components are VOC Compliant in all states and provinces in North America**
- **Strong and Tough Floor.**
- **Excellent Chemical and Abrasion Resistance**
- **Designed for new floors and for resurfacing old floors**

LIMITATIONS

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- These systems are best suited for applications in temperatures between 60°F to 90°F (16°C to 32°C).

Water Cement Ratio 0.4 to 0.5 an approximately a 4,000 psi (28 MPa) strength level.

- Higher temperatures will result in shortened working time and faster drying time.
- Do not use as a primer when concrete slab exceeds 3 lbs. or 80% RH.

COLORS

SP638 14 Color Blends or SP646 12 Color Blends CrownFlake broadcast flakes.

CONCRETE

Concrete must be structurally sound and free of curing agents, coatings, sealers, densifiers and other bond breakers.

New Concrete:

- Place concrete per ACI 302.2R contact with the concrete meeting ASTM E1745 Standard Specification for Plastic Water Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs. The moisture barrier needs to be placed per ASTM E1643 Standard Practice for Selection, Guide for Concrete Slabs that Receive Moisture-Sensitive Floor Materials.
- Requiring a positive side moisture barrier in direct Design, Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs, Class A 15 mils (0.38mm).

Existing Concrete:

If field tests or laboratory analysis reveals inferior concrete flooring slabs containing contaminants from previously applied unreacted silicate materials that will interfere with the bonding.

- Contaminants include, but are not limited to: organic hydrocarbon materials, calcium chlorides and aluminum stearates.
- Concrete flooring slabs can lose their structural strength over time, caused by conditions beyond the control of the flooring manufacturer or the installation contractor.
- If the concrete substrate deteriorates sufficiently, it will no longer support the bond of the remediation floor system.

Such conditions are detailed in ACI 201.2R "Guide to Durable Concrete" published by the American Concrete Institute. See Crown Polymers Technical Bulletin: 1 Concrete Surface Preparation.

Mechanical Properties at 77°F (25°C) 7 Day Cure (8355 CrownShield®) For Complete Details See 8355 CrownShield® Technical Data Sheet	
Surface Preparation ICRI Guideline No. 310.2R (CSP 2 to CSP 4), Depending on System being Installed and Concrete Condition.	
Tensile Strength, ASTM D638	2,500 psi (17.2 MPa)
Tensile Elongation, ASTM D638	4%
Adhesion, ASTM D7234	>400 psi (2.75 MPa)
Hardness (Shore D) ASTM D2240	70 - 75
Microbial (fungi) Resistance, ASTM G21 without an anti-microbial agent)	Pass < 1
Moisture Vapor Emission Rate, ASTM F1869*	3 lbs.
Moisture Relative Humidity, ASTM F2170*	80% rh
*If moisture or relative humidity exceeds the test limits consult a Crown Polymers representative and refer to Crown Polymers Technical Bulletin 6 Moisture Mitigation Negative Side Moisture Barrier.	
Note: Although testing is critical, it is not guaranteed against future Problems. This is especially true if there is not a positive side vapor barrier installed per ACI 302.2R and ASTM F1754. Concrete must be sound and durable per ACI 201.2R and be free of bond breaking properties and/or concrete contamination from oil, chemical spills, densifiers, excessive salts and other bond breakers.	

CHEMICAL RESISTANCE DATA

See Crown Polymers Technical Bulletin: 9 Chemical Resistance Guidelines and Chart.

CHECK CONCRETE MOISTURE

Concrete must be dry before application of this floor coating material. Concrete moisture tests are required, either ASTM F1869 (calcium chloride) or ASTM F2170 (in situ RH probe). Refer to appropriate Technical Data Sheet limits and Crown Polymers Technical Bulletin: 6 Moisture Mitigation Negative Side Moisture Barrier.

CHECK TEMPERATURE and HUMIDITY

Floor and material temperature must be at or above the published Technical Data Sheet. Relative Humidity must be 5^{0}F (3^{0}F) below the dew point. Do not apply if humidity is at or above 95%. See Crown Polymers Technical Bulletin: 7 Temperature and Relative Humidity Limits.

SURFACE PREPARATION

Surface preparation in accordance with: ICRI Guideline No. 310.2R Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repair. The pH of the concrete substrate should be at 9 or above. All bond-breaking material must be removed. See Crown Polymers Technical Bulletin: 1 Concrete Surface Preparation.

OPTIONAL ANTIMICROBIAL

The antimicrobial additive is a non-heavy metal biocide that can be added during the manufacturing process. The antimicrobial agent can be added to the top coat only for an economical application or it can be added to each step of the application, primer, body coat and top coat, which is recommended for abusive environments. See Crown Polymers Technical Bulletin: 11 Understanding the Optional Antimicrobial Additive.

MIXING

For ease of mixing and placement, the temperature of the "A" and "B" components should be between 70^{0}F to 80^{0}F (20^{0}C to 26^{0}C). Pre-mix the "A" and "B" component to ensure all raw material and pigments are dispersed uniformly. See Crown Polymers Technical Bulletin: 10 Mixing Guidelines.

APPLICATION

Place all steps per Crown Polymer Installation Guidelines.

SKID-RESISTANCE

Skid-Resistance – Field (in situ) Wet Dynamic Coefficient of Friction (DCOF), ANSI A326.3. See Crown Polymers Technical Bulletin: 4 Coefficient of Friction.

SHIPPING and STORAGE

Ship and store material between 40°F to 90°F (4°C to 32°C). Store in a dry environment and out of direct sunlight.

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.

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TECHNICAL SUPPORT

For questions, contact a Crown Polymers Representative.

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 a 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 any 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 whether expressed or implied. Crown Polymers shall not be responsible for the use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee pertaining to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator will be issued. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. Crown Polymers reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

FOR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN. KEEP CONTAINERS TIGHTLY CLOSED.

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