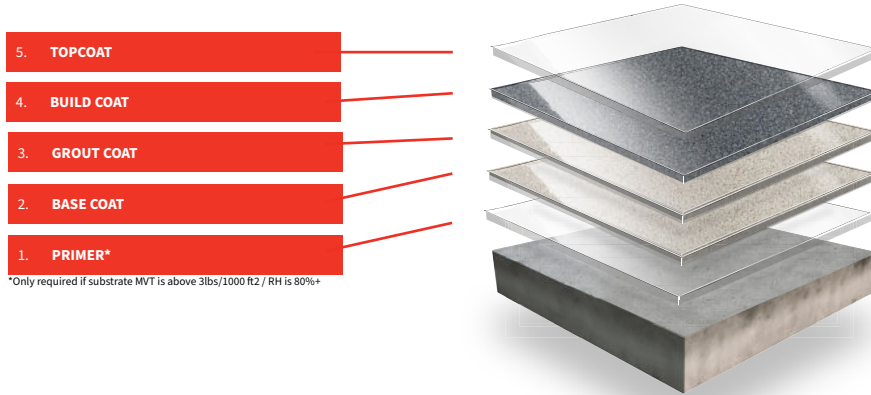


SYSTEM DESCRIPTION

CrownTrowel is a 5-layer robust flooring system with an overall nominal thickness of 250 mils, ideal for the most demanding environments. CrownTrowel standard epoxy trowel natural quartz is a solid color, resin rich, aggregate filled, seamless, epoxy floor system with high density and compressive strength for exceptional durability. This heavy duty epoxy system demonstrates excellent chemical resistance as well as superior abrasion and impact resistance. CrownTrowel can be customized to meet decor and slip-resistance requirements. Final surface appearance options include: 18 standard and unlimited custom colors, slight or heavy orange peel, integral cove base, and variable surface texture to produce a range of slip-resistant finishes. This product can be applied using a mortar and finished by hand troweling or power troweling. CrownTrowel is typically installed at 1/8" - 1/4" (3.1 - 6.5 mm)



*Only required if substrate MVT is above 3lbs/1000 ft² / RH is 80%+

SYSTEM COMPOSITION

1. 8303 CrownShield® MVB (if necessary)
2. 8318 CrownShield® Epoxy w/ Trowel Sand
3. 8312 CrownGrout
4. 8318 CrownShield® Pigmented Epoxy
5. 8100 CrownCote HP Polyurethane

OPTIONAL TOPCOATS:

- 8120 CrownPro Pigmented Polyaspartic
- 8340 CrownPro Pigmented High-Solids Polyaspartic
- 8175 CrownPro Pigmented Polyaspartic

TYPICAL USES

- Airport Hangars
- Automotive Shops and Mechanics Floors
- Commercial Buildings
- Hospital and Health Care Facility Floors
- Laboratories and Research Floors
- Pharmaceutical Floors
- School and University Floors

BENEFITS

- Superior mechanical resistance
- High abrasion and impact resistance
- Good chemical resistance
- Durable, impermeable, and seamless
- Easily cleaned and maintained for a more sanitary work environment
- Neutral odor
- Protects new concrete from abuse
- Rejuvenates worn surfaces
- Resists heavy traffic
- Reduced downtime
- Optional slip resistant surface

PHYSICAL PROPERTIES

COMPRESSIVE STRENGTH	ASTM C579	10,000 p.s.i
TENSILE STRENGTH	ASTM D2370	4,000 p.s.i
TENSILE ELONGATION	ASTM D2370	30-40%
KONIG HARDNESS	ASTM 4366	150
ABRASION RESISTANCE CS17 Wheel, 1000g Load, 1000 Cycles	ASTM D4060	30 mg loss
IMPACT RESISTANCE	ASTM D2794	160 in/lbs
GLOSS INDEX @ 60°	ASTM D523	80-90

*The above physical properties were measured in accordance with the referenced standards. Results may vary based upon statistical variations on mixing methods, equipment, application methods, environment, actual site conditions, and curing conditions. All sample preparation and testing are conducted in a laboratory environment and actual performance on job site may vary from these values based on actual site conditions.

CONCRETE

Concrete must be structurally sound. Concrete should be properly cured and have a minimum compressive strength of 3,000 psi and a minimum surface tensile strength of 250 psi prior to coating application. Concrete substrate should have a minimum Floor Flatness Tolerance level of FF30 per ASTM E1155 unless otherwise specified. Concrete finish shall be steel troweled.

Surface shall be clean and free of all contaminants and bond breakers. 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

SUBSTRATE DIAGNOSTICS

Test concrete compressive strength using a Schmidt or Rebound Hammer to ensure substrate has compressive strength of 3,000 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. Refer to appropriate Technical Data Sheet limits and Crown Polymers Technical Bulletin: 6 Moisture Mitigation Negative Side Moisture Barrier.

SURFACE PREPARATION

Use Mohs scratch test to determine concrete hardness for proper concrete preparation method.

Concrete should be mechanically profiled and prepared to produce appropriate Concrete Surface Profile (CSP) per ICRI Guideline no. 310.2R. See CrownTech Bulletin 1: Concrete Surface Preparation and refer to individual product Technical Data Sheet (TDS) for desired CSP level.

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.

CLIMATE EVALUATION

Ambient and substrate temperatures should be above 50°F and a minimum of 5°F above Dew Point for ideal dry times. Refer to product Technical Data Sheet (TDS) for application temperature ranges.

Product temps should be between 70-80°F.

Atmospheric Relative Humidity should not exceed 80% during application. 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 DISPOSABLE ARM SLEEVES, SAFETY GLASSES, DISPOSABLE 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.

MIXING

For ease of mixing and placement, the temperature of the “A” and “B” components should be between 70°F to 80°F (20°C to 26°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 and refer to Individual products Technical Data Sheet (TDS) for mixing procedures.

APPLICATION

Please refer to each individual product’s Technical Data Sheet (TDS) for Application Instructions.

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.

CHEMICAL RESISTANCE

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

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.

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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