8240 CrownBase™ Fast-Glue™ Polyurea

TECHNICAL DATA SHEET Product Number: 8240

Polyurea Primer and Base Coat for Quick Turnaround

DESCRIPTION

8240 CrownBase is a high-performance polyurea primer, base coat, and coating. It is a low viscosity, low odor, 97% solids. Featuring outstanding adhesion, abrasion, impact, and chemical resistance. It is designed especially for challenging flooring and wall surfacing environments in a wide range of temperature and climatic conditions, including but not limited to, commercial, industrial, and institutional facilities. It is VOC compliant in all states and provinces in North America.

TYPICAL USES

- Animal Care and Housing
- Airport Hangars
- Automotive Show Room and Garage
- Commercial Bakeries and Kitchens
- Food, Beverage and Spirits Processing
- Garage and Residential
- Hospital and Health Care Facility
- Laboratories and Research
- Locker Rooms and Rest Rooms
- Manufacturing and Warehouse
- Mechanical Equipment Room
- Pharmaceutical and Cosmetics
- Warehouse and Loading Docks
- Waste Water Treatment

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 all states and provinces in North America. Cures to an inert finish. **See Crown Polymers Technical Bulletin: 2 VOC Compliance.**
- Strong and Tough Floor
- Excellent Chemical and Abrasion Resistance
- Designed for new floors and for resurfacing old floors

LIMITATIONS

- This product is best suited for applications in temperatures between 60°F to 90°F (16°C to 32°C). **See Crown Polymers Technical Bulletin: 7 Temperature and Relative Humidity Limits.**
- Higher temperatures or higher RH will result in shortened working time and faster drying time.
- Color may vary due to batch to batch variation, always "box" different batches to avoid it.

COLORS

White Base, pigmented Sand Tan, and Concrete Gray only.

COVERAGE RATE PER GALLON

- Primer: 160 to 200 sq. ft. (14.9 to 18.9 sq. m.) 8 to 10 mils (WFT)
- Coating: 100 to 160 sq. ft. (9.3 to 14.9 sq. m) 10 to 16 mils (WFT)
- Receiving Coat for Color Flakes: 120 to 160 sq. ft. (11.15 to 14.9 sq. m.) 10 to 13 mils (WFT)

HANDLING and SAFETY

Warning! Eye and skin irritant. May cause dermatitis and sensitization. Always read and follow the product SDS. Avoid contact with eyes, skin, and clothing. Avoid breathing vapors, mist, and spray. Use good ventilation.

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 Guide for Concrete Slabs that Receive Moisture-Sensitive Floor Materials.
- Water Cement Ratio 0.4 to 0.5, and an approximate 4,000 psi (28 MPa) strength level.
- Requiring a positive side moisture barrier in direct 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, 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 concrete flooring slabs contain contaminants from previously applied unreacted silicate materials, such as, sodium silicates, potassium silicates, or lithium silicates that will interfere with the bond, use 8201 CrownPrime WBC Primer. **See Crown Polymers Technical Bulletin: 12 Selecting a Primer.**

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

CHEMICAL RESISTANCE DATA

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

Physical Properties at 77°F (25°C)	
VOC (Volatile Organic Compounds), (VOC Calculated Per ASTM D3960)	< 50 g/l
Standard Viscosity White Base, Mixed Polyol and Isocyanate	400 – 600 cps
Mix Density White Base, Mixed Polyol and Isocyanate	9.4 lbs./gal
Pot Life,100 Grams Mass, Pot Life is Reduced by Increases in Mass and Temperature	20 - 25 Minutes
Mix Ratio, by Volume, Polyol and Isocyanate	2:1
Dry to Touch, Tack Free Time	2 – 3 Hours
Cure Information, Relative Humidity 55% If the relative humidity is higher the cure time will be quicker. If the relative humidity is lower the cure time will be slower.	Dry Time 2 Hours
	Mar Free 5 Hours
	Recoat Max 12 Hours
	Foot Traffic 10 Hours
Shelf Life (shipped and stored) at 40°F to 100°F (4.4°C to 38°C)	1 Year
Packaging 3 and 15 gal. (11.4 and 56.8 liters)	

Mechanical Properties at 77°F (25°C)	
Surface Preparation ICRI 310.2R Concrete Surface Profile (CSP 2 and above) Depending on System to be Installed and Condition of Concrete.	
Tensile Strength, ASTM D412	3,000 psi
Tensile Elongation, ASTM D412	100%
Tear Resistance, ASTM D1004	200 psi
Adhesion, ASTM C1583, Concrete Failure	>400 psi
Hardness (Shore D), ASTM D2240	50 – 55
Moisture Vapor Emission Rate, ASTM F1869*	3 lbs.
Moisture Relative Humidity, ASTM F2170*	80% RH
*If moisture or relative humidity exceeds the limits consult the Crown Polymers representative and refer to **Crown Polymers Technical Bulletin: 6 Moisture Mitigation Negative Side Moisture Barrier**	

Note: though testing is critical, it is not a guarantee against future problems. This is especially true if there is not a positive side vapor barrier or it is not functioning properly and/or concrete has contamination from oils, chemical spills, densifiers, excessive salts or other bond breakers.

CHECK CONCRETE MOISTURE

The 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 & HUMIDITY

Floor and material temperature must be at or above the published Technical Data Sheet. Dew Point must be 5°F (3°C) or more below the surface temperature. Do not apply if humidity is at or above 85%. **See Crown Polymers Technical Bulletin: 7 Temperature and Relative Humidity Limits.**

SURFACE PREPARATION

Surface preparation per: 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.**

APPLICATION EQUIPMENT

Depending on system applied: Disposable 3" brush for cutting in, variable low-speed drill (450 rpm) with Jiffy® type impeller mixing paddle, 3/8 inch nap non-shedding phenolic core roller and frame, and V-notched rubber squeegee.

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 topcoat only for an economical application or it can be added to each step of the application, primer, body coat, and topcoat, 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°F to 80°F (21°C to 27°C). Pre-mix the "A" and "B" components to ensure all raw material and pigments are dispersed uniformly. Box pigmented products if using different numbers for uniformity of color. **See Crown Polymers Technical Bulletin: 10 Mixing Guidelines.**

APPLICATION

After mixing all contents as instructed, immediately pour all liquid material onto the properly prepared concrete substrate or next polyurea lift in ribbons and squeegee the material out evenly. Check for desired wet film thickness with a WFT Gauge. Back-roll and cross-rolling of material are critical. If broadcasting aggregate, broadcast into the wet material. Place trowel mortar mix within installation sequence. Lock coat, grout coat, or topcoat. Place all steps per Crown Polymer Installation Instruction.

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.

SHELF LIFE

Shelf life is 1 year from the date of manufacturer, provide the containers are unopened.

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 per federal, state, province, and local regulations.

MAINTENANCE

Inspect the installed floor by spot cleaning and spot repairing the damaged or cracked areas. To prolong the 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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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.

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