

CrownShield™ WB

TECHNICAL DATA SHEET

Product Number: 8313

Revision Date: 05/05/17

Water-Based Epoxy Floor Coatings

DESCRIPTION

CrownShield™ WB is a low VOC, 2-component water-based polyamide epoxy floor coating. It has a breathable capability that allows moisture vapor to escape from the concrete. It is recommended to be applied as a concrete sealer to prevent outgassing during topping application. CrownShield™ WB can also be used as a stand-a-alone system when there are high moisture readings in the substrate. CrownShield™WB is best suited when large dust-proof warehouse flooring is needed.

TYPICAL USES

- Garages
- Laundries
- Schools
- Warehouses
- Retail Stores

BENEFITS

- Low VOC, <98g/L, Low Odor
- Higher Breathability than Standard Epoxy Floor Coatings
- Excellent Adhesion to Properly Prepared Concrete
- Good Resistance to Mechanical Abuse
- Good Chemical Resistance
- UV Resistance
- Long Pot Life
- Can Be Applied with Dip-N-Roll Method

PACKAGING

Available in 1 & 4 gallon (2 Sided Kits)

COLORS

Clear - Unpigmented

COVERAGE

Approximately 320 sq.ft. per gallon @ 5 mils.

STORAGE

This product has a maximum shelf life of one year when stored off the ground in a dry area at 50° to 110°F, in the original sealed container.

LIMITATIONS

This product contains water, it may require additional air movement to allow for quicker drying to eliminate hazing or whitening where there are pooling. Higher humidity will result in slower dry times and cause poor water evaporation. Certain colors may require multi-coats to offer better hiding. Color may vary due to batch-to-batch variation. To insure color matching use the same batch numbers when ordering.

HANDLING/SAFETY

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

FIRST AID

In case of contact:

1. Eyes: Immediately flush with water for at least 15 minutes.
2. Skin: Immediately remove from skin with dry cloth followed by thorough washing with soap and water.
3. Inhalation: Remove to fresh air. If breathing is difficult, give oxygen.
4. Ingestion: Immediately call a Poison Center/Doctor. Do NOT induce vomiting. If vomiting occurs naturally, lie on your side, in the recovery position.

CAUTION

Always read and understand the specific product data guide and SDS sheets before using this product. For more information contact Crown Polymers.

CHECK THE CONCRETE

Concrete must be structurally sound and free of curing membrane, paint or other sealer. If you suspect that the concrete has been previously sealed, call Crown Polymers technical support for further instructions.

PRELIMINARY FLOOR INSPECTIONS

PHYSICAL CHARACTERISTICS

DESCRIPTION	PHYSICAL PROPERTIES
Components	2 Sides
Visual Appearance	Glossy
Density	8.8 lb/gal
VOC content	<98g/l
Pot Life @ 70°F	2 hours
Equipment	brush, roller & flat rubber squeegee
Number of Coats	2
Theoretical Coverage	320 ft ² /gal @ 5 mils WFT
Dry to Touch @ 70°F, 50%RH	4-6 hours
Light Traffic	24 hours
Full Cure	7 days
Recoat Time @ 70°F	12 to 72 hours
Min. Application Temp.	50°F
Mix ratio by Volume	1:3 (A/B)

MECHANICAL PROPERTIES

PROPERTIES	DATA
Surface Prep Required	ICRI CSP-3, Primed
Adhesion, ASTM D7234	>400psi Concrete Failure
Tensile Strength, ASTM D2370	4500 psi
Tensile Elongation, ASTM D2370	5%
Water Absorption, ASTM D570	<0.1%
Flame Test, ASTM D64	Class 1
Abrasion Resistance, ASTM D4060	30 mg loss
Coefficient of Friction, ASTM D2047	0.7 smooth
Permeance, ASTM E96	Breathable
Impact Resistance, ASTM D2794	140 in./lb.

Note: Although testing is critical, it is not a guarantee against future problems. This is especially true if there is no vapor barrier or the vapor barrier is not functioning properly and/or you suspect you may have concrete contamination from oils, chemical spills or excessive salts.

CHEMICAL DATA @ 70°F

DESCRIPTION	DATA
pH Range	4-13
Inorganic Acids	Good
Organic Acids	Good
Alkali	Excellent
Solvents	Good
Hydrocarbons	Good

CHECK FOR MOISTURE

Concrete must be dry before application of this floor coating material. Concrete moisture testing must occur. Calcium chloride testing or “In-situ” relative humidity testing is recommended. Test methods can be purchased at www.astm.org, see ASTM F1869-11 or F2170-11, respectively or follow manufacturer’s instructions. Readings must be below the defined threshold as specified for each Crown Polymers system to be installed directly to the concrete substrate. Please refer to the appropriate Technical Data Sheet for this information.

CHECK THE TEMPERATURE AND HUMIDITY

Floor temperature and materials should be between 65°F (18°C) and 90°F (32°C). Humidity must be less than 95%. DO NOT coat unless floor temperature is more than (5°F) over the dew point.



THE APPLICATION PROCESS

1. SURFACE PREPARATION

Requires ICRI CSP 3

This product requires proper surface profile to perform as expected. Substrate must be mechanically profiled (ASTM 4259-83), clean, sound, dry, and best primed prior to application.

2. APPLICATION EQUIPMENT

Tools: 3" Disposable brush, low speed drill (450 rpm) with a 3.5" Jiffler blade, 3/8" nap non-shedding phenolic core roller, and a flat rubber squeegee.

3. MIXING

The temperature of the (A) and (B) portions should be between 70° and 80°F (20°-25°C). Mix them separately to ensure a uniform consistency. For a 1 gallon kit add (Side-A) into (Side-B). Mix contents thoroughly until all components are completely incorporated and no streaking is observed. Thinning is not recommended. The portions of each side is accurately measured to ensure optimum product performance. Pouring from one container to the other (boxing) during mixing is very helpful in ensuring complete mixing. Mix for 2 minutes.

4. ROLL ON

Two-Step dust proof clear concrete sealer application
Priming concrete applications: After mixing all contents as instructed, immediately pour out into a ribbon on the surface. Squeegee the material out evenly and check for desired film thickness by using a wet-film thickness gauge. Back-rolling may be necessary in certain applications. Allow the material to soak into the concrete. Dilution maybe required depending upon the porosity of the concrete. Allow to dry minimum of 4 hours before recoat. Use the same application instructions to apply a second coat. Allow minimum of 24 hours for light duty traffic.

CLEAN-UP

Clean-up mixing station, tools and application equipment immediately after completion. Use suitable solvent as specified by Crown Polymers' Technical Services Team or if permissible by law, xylene, as a general over-the-counter solvent. Observe all fire hazards, legal, and health and safety precautions when handling or storing solvents, particularly in confined spaces. Make sure the working area is well ventilated at all times during application and curing times.

DISPOSAL

Dispose all excess materials, packaging, and other waste in accordance with federal, state, and local regulations.

MAINTENANCE

Occasionally inspect the installed floor by spot cleaning and spot repairing any damaged or cracked areas. To prolong the life of the flooring system, a daily cleaning maintenance program is highly recommended to ensure the floor is safe for its intended purpose.

TECHNICAL SUPPORT

For any application questions, please call our Crown Polymers Technical Team. PLEASE SEE SAFETY DATA SHEET (SDS) FOR SAFETY AND PRECAUTIONS. USE PRODUCT AS DIRECTED. KEEP OUT OF THE REACH OF CHILDREN.

DISCLAIMER

All guidelines, recommendations, statements, 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 assumes 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.

