CHEM-WATER™

Waterbased epoxy sealer coating

DCC Master Format™ 09 67 00 **V.6.23**

COMMERCIAL INDUSTRIaL INSTITUTIONaL RESIDENTIaL

DESCRIPTION

CHEM-WATER™ is a unique, ultra-light, transparent, two-component waterborne epoxy sealant. It is flexible, non-toxic, low in VOCs and virtually odorless.

The **CHEM-WATER™** is self-priming and has been designed as a base coat for sealing concrete slabs to enable them to retain their natural color. The CHEM-WATER™ formulation is based on advanced, high-performance technology displaying exceptional properties.

The **CHEM-WATER™** is a versatile product that can be used for a wide variety of applications:

- ☑ As a primer for concrete or cement floors requiring minimal alteration of the natural shade or appearance of the concrete substrate.
- ☑ As a wood sealer. Unlike other water-based epoxies, **CHEM-WATER™** is water-clear and has superior color stability to solvent-based epoxies. The sealer has excellent flexibility to accommodate the natural expansion and contraction of the wood substrate. It is also breathable.
- ☑ As a transparent topcoat (glaze) over other water-based epoxy coatings. It offers excellent gloss and clarity.

WHERE TO USE

The **CHEM-WATER™** is designed primarily as a primer/sealer for concrete or wood substrates. It is compatible with a variety of high-performance **CHEMTEC™** coatings.

Recommended for use under clear epoxy or aliphatic urethane coatings for interior and exterior decorative applications. It can also be used for art stones and similar applications.

BENEFITS:

- Low odor, high solids content,
- Easy to apply in two coats
- Excellent chemical resistance (Immersion, splashes and spills)
- Excellent adhesion to concrete
- Easy to clean and maintain

The **CHEM-WATER™** offers a unique combination of long pot life and fast drying characteristics. It cures in 6 hours, allowing same-day topcoat application and saving time and money. It's ideal for fast-track projects.

The **CHEM-WATER™** offers good color retention and resists yellowing. Its UV resistance is far superior to that of other conventional epoxy-based formulations.
It does not affect the natural color of concrete.
It has a high gloss and is stain and water resistant.
It is also resistant to food acids and common chemicals.

The **CHEM-WATER™** has excellent adhesion to hardwood and interior wood floors, as well as dry concrete surfaces.
It has very good flow properties, making it easy to penetrate wood or concrete to improve adhesion and prevent outgassing.

The **CHEM-WATER™** exhibits excellent barrier properties, retaining high pore resistance after long-term immersion in a sodium chloride (salt) solution.

The **CHEM-WATER™** has excellent chemical and stain resistance. It is resistant to food acids, household cleaners, salts, oils and petroleum.

COLORS

Clear

TESTS

Not all surfaces are the same. It is recommended to create a sample area before starting the project. The test should be carried out on site, using the method suggested by your CHEMTEC representative to ensure good adhesion and color. A sample area should also be performed on existing coatings to determine if there are any contaminants or if delamination will occur.

Appropriate test procedures must be applied with regard to soil acidity and water vapour transmission. Take a pH reading to ensure that the concrete is neutral (a reading between 5 and 9 is acceptable). Use a calcium chloride test to measure water vapor transmission. Readings of 3.5 lb/1000 ft² over a period of 24 hours or less are acceptable for the application of coatings. Higher readings should be addressed with a moisture mitigation system.

The surface must be mechanically prepared in accordance with CSP2-3. Ensure that the surface is free of contaminants and that pores are open to allow product penetration.

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PHYSICAL PROPERTIES

PROPERTIES IN A LIQUID STATE AT 23°C (74°F) :	VALUES
Volumetric ratio	**2A : 1B**
Mixture weight (density)	**1.06 kg/liter (8.8 lb./US gal.)**
Solids content	**52%**
Application temperature	**10°C-30°C (50°F-86°F)**
Pot life: (working time)	**1 hour.**
Resurfacing time:	**6 hours**
Foot traffic:	**16 hours**
Complete cure:	**7 days**
Curing properties	**(7 days curing/50% RH) :**
USDA Food & Beverage & CFIA:	**Meets all requirements**
Shelf life:	**12 months**

SURFACE PREPARATION

Before applying the system, the concrete surface must be:

- ☑ Dry - Non-wet areas (<4%) ASTM D4263
- ☑ Clean - Remove all contaminants, dust, grease, delaminated coating, laitance or any other contaminant that may affect adhesion.
- ☑ Profile - Mechanically profiled CSP2-4.
- ☑ Solid - All cracks and loose areas must be treated and/or repaired. The concrete surface must be prepared by mechanical methods such as shot blasting, grinding or any other method approved by CHEMTEC™ COATINGS INC.
- ☑ Concrete must be cured for at least 28 days before applying the coating system. If the product is applied over an existing epoxy flooring system that has cured for more than one day. It must be sanded according to established standards.
- ☑ Mechanical profiling is required to ensure open pores to enable the coating to achieve better adhesion. Vacuum dust and remove all residues properly from the surface before applying CHEM-WATER™. If in doubt about surface preparation, perform adhesion tests.

NOTE : The **CHEM-WATER™** is a self-priming product that does not require when the concrete substrate is dry.

For optimum performance, the coating and substrate must be kept at a minimum temperature of 10°C (50°F) for 24 hours before starting work.
The same temperature range must be maintained during mixing, application, and curing.

MIX

Tools and containers used to mix **CHEM-WATER™** must be clean and free of contaminants from previously used products.

Before final mixing, pre-mix parts A and B individually at low speed. Particular attention must be paid to the product, as some components may have separated from the rest of the formulation during storage, eliminating the possibility of deposition. Mixing should be done until the product is uniform.

Next, mix two parts of A and one part of B together at low speed in a separate container. The mixing vessel must be clean and free of all external particles. Mix thoroughly for three (3) minutes using a low-speed drill (300-450 rpm) to minimize air entrapment. Be sure to discard the sides and bottom of the mixing container so that no unmixed material remains.

Mix only the quantity needed for the specified pot life/working time.

APPLICATION

NOTE: The **CHEM-WATER™** requires an induction time of 15 to 20 minutes (let stand for 15 to 20 minutes) before application for optimum performance.

NOTE: The **CHEM-WATER™** is milky on application but transparent over time. Drying time may be longer depending on relative humidity and temperature at the time of application.

The equipment used to mix the coating must be clean and free of any contaminants from previously used previously used.

For the application of a "WET LOOK" system
As a primer coat before covering with CHEM100™ or CHEM-FLUX™;
Two coats are recommended:
Apply each coat has a coverage of 70ft²/L.

CURING & RECOATING TIME

Once application of **CHEM-WATER™** is complete, **CHEM-WATER™** will withstand normal foot traffic after overnight drying but will remain susceptible to marking from furniture or heavy traffic until fully cured for up to 7 days after application.

For covering with carpet, rugs, or other accessories directly on the surface, do not cover **CHEM-WATER™** until it is completely dry (minimum 3 days).

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DISPOSAL

The hardened product can be disposed of without restriction. Excess liquid A and B should be mixed and allowed to harden, then disposed of in the normal way.

Product can be disposed of in accordance with provincial and federal regulations.

Uncured material can be disposed of with a suitable solvent. Follow the solvent manufacturer's instructions for use and warnings.

LIMITATIONS

- Waterborne epoxy should be applied at temperatures above 10°C (50°F) and relative humidity below 80%. Good air circulation is necessary to facilitate water evacuation.
- Very high humidity and poor air circulation will considerably slow down water release and drying. This can lead to a haze or lack of gloss in the final finish. Avoid this combination.
- Thin coats are always recommended to avoid roller marks.
- Apply only to a properly prepared surface.
- Efflorescence can develop as a result of water migration and can lead to adhesion failure or surface discoloration.
- Wood must be sanded until bare, and concrete must be mechanically or chemically abraded before application.
- Make sure all water/moisture is removed from the concrete or wood (<4%) and that the substrate is completely dry before applying the epoxy topcoat.
- Avoid application in direct sunlight or in very hot, humid environments; use early in the morning or late in the afternoon.
- May discolor with constant exposure to UV light or certain untested chemicals.

THEORETICAL COVERAGE

6 mils: 70 ft²/liter (267 ft²/US gallon)

PACKAGING

11.34L / 3 gal. U.S.

CLEANING

Immediately clean all installation equipment and tools with water.

STORAGE

Store at a controlled temperature of at least 10°C (50°F). Do not leave containers directly on concrete. Keep from freezing.

SHELF LIFE

One year from the date of manufacture if the product is stored in its original, unopened packaging under normal temperature-controlled storage conditions.

WARRANTY

CHEMTEC™ COATINGS products are warranted for one year from the date of application. Please refer to the CHEMTEC ™ Material Limited Warranty for details.

CHEMTEC™ COATINGS INC. stands behind the quality of its products. However, CHEMTEC™ COATINGS INC. cannot guarantee the final results since CHEMTEC™ COATINGS INC. has no control over surface preparation, operating conditions, or application procedures. Customers are solely responsible for testing products to determine if they perform as intended. Contact CHEMTEC™ COATINGS INC. for more information on the limitations of this product.

"The recommendations made, and the information contained in this document are the result of precise tests carried out in the laboratory and in the field under controlled conditions. We guarantee that the quality and properties of the materials supplied conform to our standards. CHEMTEC™ COATINGS INC. makes no warranties, expressed or implied, as uses and applications are beyond our control. CHEMTEC™ CLOTHING INC. is not responsible for any injury, loss or damage (direct or indirect) resulting from the use or inability to use the products. Before using the products, the user is encouraged to test them in his or her own environment to determine their suitability for the intended use, and the user assumes all risk and liability in connection therewith.

CHEMTEC™ CLOTHING Inc.'s liability, if any, is limited to the refund of the purchase price or replacement of that portion of the merchandise found to be defective. CHEMTEC™ CLOTHING INC. has no other liability, including liability for incidental, consequential, or resulting damages, however caused, whether due to breach of warranty, negligence, or strict liability.

This warranty may not be modified or extended by representatives of CHEMTEC™ COATINGS INC. or its distributors or dealers."

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SAFETY PRECAUTIONS

Uncured epoxy resins and hardeners present certain risks. hazards. Avoid skin contact and ensure adequate ventilation. Consult Material Safety Data Sheet (MSDS) for specific instructions.

Avoid contact with skin. Some people may be allergic to epoxy resin. Protective gloves, adequate ventilation and protective clothing are recommended.

For further details, consult the Material Safety Data Sheet (MSDS).

– KEEP OUT OF CHILDREN'S REACH -

- FOR INDUSTRIAL USE ONLY -

- KEEP FROM FREEZING -

The information presented is, in our opinion, accurate and consistent; however, they are presented without reservation and without guarantee on the part of CHEMTEC™ COATINGS. It is therefore the user's responsibility to check this data and validate this information and the suitability of this product for the intended use. CHEMTEC™ COATINGS will not be held responsible for the use of this product in systems.

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