

**CHEM 1000 PREMIUM**

**Top Coat, Solvent-Free, High Performance Product**

**PRODUCT DESCRIPTION**

The CHEM 1000 PREMIUM is a two-component polycarbamide floor coating system (polyaspartic) which is 100% solids, zero VOC and has no/minimal odor. This product displays superior mechanical and chemical properties and is low maintenance. The system is self-priming and is also designed to be used as top coat with CHEM 1000 PREMIUM's base coat and Chemtec vinyl chips in a single work day (ask a Chemtec representative for additional details). The CHEM 1000 PREMIUM's formulation is based on advanced aliphatic coating system technology displaying superior aesthetic finish and excellent UV stability.

- Zero VOC, 100% solids
- Potential for LEED eligibility
- Excellent UV (non-yellowing) and impact resistance
- Cures quickly and at low temperature levels
- Possibility to install base coat and top coat in a single workday
- High chemical and mechanical resistance
- Impermeability / low moisture sensitivity
- Superior gloss finish
- High density of the product prevents dirt penetration resulting in low maintenance post application
- Application-friendly with low viscosity and reasonable working time

**USES**

The chemical and mechanical properties of CHEM 1000 PREMIUM provides excellent results for a number of applications:

- Shopping malls
- Office buildings
- Retail stores
- Industrial plants and warehouses
- Food processing and preparation plants
- Public facilities including hospitals and schools
- Pharmaceutical companies
- Other industrial, commercial, farming, military and residential uses
- Parking garages

**ADVANTAGES**

- Solvent-free, no/minimal odor

**APPLICATION DATA**

Mix ratio	2A :1 B		
Packaging	3 x gallons kits		
Color	Clear or colored		
Coverage / GAL	Mils	Sq. Ft.	
		12	133
		14	114
		16	100

Shelf life            Six months , in original Unopened factory pails under normal storage Conditions.

Cure time			
Working time :	15-20 min	22°C and 55% rel. hum	
Tack free	: 100 min	22°C and 55% rel. hum.	
Hard dry	: 4 hours	22°C and 55% rel. hum.	
Light foot dry	: 8 hours	22°C and 55% rel. hum.	
Light traffic	: 2-3 days	22°C and 55% rel. hum.	
Full cure	: 2 weeks	22°C and 55% rel. hum.	

Solids content	100%
Cov	zero

**TECHNICAL PROPERTIES**

Viscosity (A&B)	1050	cP
Hardness, Shore D	ASTM D2240	>70
Ultimate Elongation	23,5	%
QUV-A (500hrs)	ASTM G154	<3.5
Taber Abrasion (1000 cycl, CS17)	40	(mg loss)
Gardner Impact (Dir/Rev)	>160	lbs

**SURFACE PREPARATION**

Concrete should be clean, dry and free of grease, oil, paint, curing agents or any contaminants that may inhibit proper adhesion. Concrete should be cured at least 28 days before applying the coating system.

Proper testing procedures should be practiced with regards to soil acidity and moisture vapor transmission. Take a pH reading to ensure concrete is neutral (a reading between 5 and 9 is acceptable). Use a calcium chloride test to measure moisture vapor transmission. Readings of 3.5 lbs./1000 sq. ft. during a 24-hour period or less are acceptable for applying coatings. Higher results should receive a moisture mitigation system.

Surface must be shot blasted or prepared with an equivalent mechanical means in line with CSP-2. Ensure the surface is free of contaminants, and the pores are open to allow the product to penetrate. If shot blasting procedure is undertaken, it may produce excessive texture to the surface which may show through the coating.

If the product is applied over epoxy, it is imperative to read the epoxy manufacturer data sheet on recoat properties for proper adhesion. Epoxy should be sanded with a proper floor machine. A mechanical

bound to a sanded surface is required and the pores of the existing coating must be opened for better adhesion. Wiping properly prepared surface with

alcohol will ensure no loose dust particles from the sanding process are present.

When using a broadcast decorative system, the base coat with the flakes should be sanded and cleaned after appropriate hardness is reached prior applying the top coat. Contact us for more details on how to use the product with broadcast systems.

**MIXING**

Before final mixing, pre-mix parts A and B individually at low speed. Then, mix two parts of A and one part of B together at low speed in a separate container. The mixing container must be clean and free of any outside particle. Mix thoroughly for three minutes using a low speed drill (300-450 rpm) to minimize the entrapping of air. It is recommended to activate the mixer in the reverse mode after the first minute in order for the liquid to mix from the bottom of the mixing can to the top. Make sure to scrap sides and bottom of mixing container so no unmixed material remains. Mix only the necessary quantity to be used according to the specified pot life / working time.

**APPLICATION**

This product will cure at temperatures well below zero Celsius. Best results will be obtained between 5-30°C and with a relative humidity of less than 80%. Although this product has been formulated to reduce bubble entrapment within the film, it is recommended to avoid application during the hottest part of the day in order to minimize outgassing and bubble formation.

Once the surface has been properly prepared, squeegee and roll back apply the product. It is

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Last update: December 2018

recommended to apply the product in a multi-directional (north-south, east-west) motion to ensure proper coating thickness.

CHEM 1000 PREMIUM is self-priming. We recommend an application of approximately 12-16 mils. We recommend the CHEMTEC vinyl chips when installing a flake system. Proper tests should be conducted prior application. Contact a Chemtec representative for additional details.

**RECOAT**

Do not recoat without sanding if last coating of the product has been applied for more than 24 hours (at 22°C). The floor surface should be sanded/abraded until a uniform dullness is achieved. There should be no gloss on the prior coating after vacuuming and before applying the next coat. It is recommended to use an aggressive solvent to eliminate all the dust after vacuuming and to soften the initial coat prior applying the additional coat. Recommended solvents are xylene and acetone. Make sure the solvent is completely evaporated and there are no residues. In case there are remaining residues, wipe the surface using a dry rag or swab.

**CLEAN UP**

Cured product may be disposed of without restriction. Excess liquid A and B material should be mixed

together and allowed to cure, then disposed of in the normal manner. Product may be disposed in accordance with provincial and federal regulations. Uncured material can be removed with proper solvent. Follow the solvent manufacturer instructions for use and warnings.

**LIMITATIONS**

Requires a dry substrate. This product should not be applied to concrete substrates that show high levels of moisture vapor transmission (see "Surface Preparation" section). Although this product may be applied in a wide range of thickness, limitations may apply when taking into consideration curing time. Everything else being equal, thicker is the film, longer is the curing time. This product may dry extremely fast in a high humidity environment. Temperature will also impact curing time. Curing time may extend significantly at very low temperature levels. Keeping the product stored at room temperature will make the application easier and dry times shorter.

Chemtech stands behind the quality of its products. However, Chemtec cannot guarantee final results since Chemtech has no control over surface preparation, operating conditions and application procedures. Clients are solely responsible to test Chemtech products to determine if they perform as expected. Contact Chemtec for further information regarding the limitations of this product.

**AVAILABLE COLOR****Clear****Refer to the most recent Material Safety Data Sheet prior using this product**

CHEMTEC COATING

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