

**CHEM100 CHEMICAL
100% Solids, High Performance**

PRODUCT DESCRIPTION

The CHEM100 CHEMICAL is a two-component epoxy floor coating Novalac system which is 100% solids, which provides a very good chemical resistance including sulfuric acid with a concentration up to 70%. This product displays an excellent resistance to UV irradiation (very slow yellowing tendency over time). It also possesses superior mechanical and chemical properties best suited for residential and commercial applications as well as a long pot life and working time. The CHEM100 PREMIUM has been designed as a top coat epoxy but it is self-priming. We also recommend to use CHEMTEC EPOXY PRIMER prior the application of the CHEM100 PREMIUM. The CHEM100 PREMIUM formulation is based on a high performance cycloaliphatic polyamine technology displaying outstanding properties and superior aesthetic finish.

USES

The CHEM100 PREMIUM provides excellent resistance for the most demanding applications:

- Commercial, residential and industrial uses
- Manufacturing facilities and warehouses
- Commercial centers
- Office buildings
- Retail stores
- Parking garages
- Food/beverage processing and preparation plants
- Public facilities including hospitals and schools
- Pharmaceutical companies

ADVANTAGES

- Epoxy system displaying one of the best UV resistance in the industry
- Environment friendly (100% solids, VOC-free and no solvent)
- Potential for LEED eligibility
- Odor free
- Easy application with long pot life and working time
- Superior mechanical and chemical properties suited for the toughest applications
- Excellent elongation and abrasion resistance
- High resistance to amine blush and contamination (fish eyes)
- Impermeability / low moisture sensitivity
- High density of the product prevents dirt penetration resulting in low maintenance post application
- Available in unlimited color range

APPLICATION DATA

Mix ratio 2A :1B

Packaging 3 gallon kits

Color Clear or colored

| Solids Coverage/gal | mils | sq.ft. |
|---------------------|------|--------|
| | 8 | 200 |
| | 10 | 160 |
| | 12 | 133 |

Shelf life one years in original unopened
Factory pails under normal storage
Conditions

Substrate temp. Min 10 °C , max 30°C

TECHNICAL DATA SHEET

Floor Coating: *CHEM100 CHEMICAL*

Last update: December 2016

Cure time

| | | |
|----------------|----------|-----------------------|
| Working time | 45 min | 22°C and 55% rel. hum |
| Tack free | 7 hours | 22°C and 55% rel. hum |
| Hard dry | 8 hours | 22°C and 55% rel. hum |
| Light traffic | 24 hours | 22°C and 55% rel. hum |
| Normal traffic | 1 week | 22°C and 55% rel. hum |

Solids content 100%

TECHNICAL PROPERTIES

| | | | |
|------------------------|------------|----|----|
| Hardness, Shore D | ASTM D2240 | 70 | |
| Elongation | ASTM D412 | 46 | % |
| Abrasion (1000 cycles) | ASTM D4060 | 49 | mg |

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 prepared mechanically in line with CSP-3-4. Ensure the surface is free of contaminants, and the pores are open to allow the product to penetrate. If the product is applied over an existing epoxy flooring system that has been cured for a period longer than one day it should be sanded with a proper floor machine. A mechanical bond to a sanded surface is required and the pores of the existing coating must be opened for better adhesion. Vacuum dust and properly wipe the surface prior applying CHEM100 PREMIUM. Conduct adhesion tests if

there is a doubt about surface preparation. When using a flakes decorative system, the primer or intermediary 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 flakes systems.

MIXING

Before final mixing, pre-mix parts A and B individually at low speed. Special attention must be paid to colored versions of the product since pigments may have separated from the rest of the formulation during storage. Mixing should be done until the color is uniform. 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. 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

Apply only when air and floor temperature is between 10-30°C and the relative humidity less than 85%. The product has been especially designed to adhere on concrete surfaces. Once the surface has been properly prepared, squeegee and roll back apply the product. It is recommended to apply the product in a multi-directional (north-south, east-west) motion to ensure proper coating thickness. CHEM100 PREMIUM is self-priming. We recommend the application of one base coat and one top coat for total system thickness of approximately 20 mils. It is also recommended to use CHEMTEC EPOXY PRIMER before to apply the CHEM100 PREMIUM (especially when the concrete is porous). The CHEMTEC PRIMER will seal the slab

and display higher flexibility hence absorbing potential sb movements. A thickness of 4-6 mils is recommended for the EPOXY PRIMER. CHEMTEC EPOXY PRIMER cures within 4-6 hours under normal conditions while proving a working time of 45 minutes (contact us for more details about the CHEMTEC EPOXY PRIMER). We recommend the CHEMTEC vinyl chips when installing a flake system. Proper testing should be conducted prior application.

RECOAT

Do not recoat without sanding if last coating of the product has been applied for more than one day. 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.

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/humidity. 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, quicker is the curing time. Moisture content of the substrate must be <4% prior to application. Not suited for exterior applications. 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. CHEMTEC COATINGS stands behind the quality of its products. However, CHEMTEC COATINGS cannot guarantee final results since CHEMTEC has no control over surface preparation, operating conditions and application procedures. Clients are solely responsible to test CHEMTEC'S products to determine if they perform as expected. Contact CHEMTEC COATINGS for further information regarding the limitations of this product.

AVAILABLE COLORS

See Standard Color Chart

- Full color customization available
- Contact us for additional details

Refer to the most recent Material Safety Data Sheet prior using this product

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