

# ZeraKlear™ CR

## High Chemical Resistant Clear Epoxy Coating

### DESCRIPTION

ZeraKlear™ CR is a two-component, 100% solids, low viscosity clear epoxy coating that provides an attractive, tough and durable finish. ZeraKlear™ has outstanding chemical resistant towards mineral acids and solvents.

### WHERE TO USE

ZeraKlear™ CR is recommended for use in areas with light to medium duty traffic, particularly decorative applications. ZeraKlear™ is ideal for hospitals, laboratories, locker rooms, washrooms, aircraft hangers, warehouse facilities, storage areas and workshops.

ZeraKlear™ is also well suited for use as a topcoat sealer for concrete countertops. It may also be used for decorative multi-colour epoxy flooring as well as a variety of other decorative applications such as clocks, plaques, and any other interior decorative items that will not be subjected to direct heat.

### BENEFITS

- 100% solids, odourless; zero VOC's
- High chemical and water resistance.
- Attractive high gloss finish with good gloss retention
- Enhances the appearance of the concrete
- Resistant to staining and yellowing
- Exceptionally high surface hardness
- Excellent bond to concrete

### HANDLING PROPERTIES @ 23°C (74°F)

Mixing Ratio, by volume .....	2 parts A: 1 part B
Viscosity (Mixed) .....	600 cps
Solids Content.....	100%
Mixed Weight (Density) .....	1.1 kg/litre (9.14 lb./US gal)
Pot Life (Working Time) .....	40 mins
Thin Film Set Time .....	12 hours
Foot Traffic .....	16 hours
Vehicular Traffic.....	24-36 hours
Full Cure & Maximum Resistance.....	7 days
Hardness (Shore D).....	80
Abrasion Resistance.....	82 mg loss
Taber Abrasion, C-17 Wheel, 1000 cycles	

### SURFACE PREPARATION

ZeraKlear™ CR should be applied over clean, sound, dust-free surfaces. For best results, surface should be prepared as follows.

#### Existing Epoxy Floor:

Make sure the floor is clean and free from oil or grease. The floor must be sanded with 80-100 grits to provide profile for adhesion. Ensure that the existing floor is sound and adhered well to the concrete. Epoxy coating would not adhere to alkyd or oil based coated floors.

#### Concrete (New):

Shotblast or equivalent to remove surface laitance, curing compounds or form oils. Concrete should be minimum 28 days old or have 3% or less moisture content. Moisture content can be determined using the test method ASTM D4263.

#### Concrete (Old):

Remove oil, grease, dirt and any unsound concrete using a combination of commercial de-greasers, alkaline wash, shot blasting or diamond grinding. A combination of acid-etching and power wash can also be used. Cracks and surface defects should be repaired prior to the application of the coating.

### CRACK REPAIR

Because of the nature of the product, all floor imperfections will show through the final coating, which makes it critical to have an almost perfect floor prior to the application of the clear topcoat. If the level of crack repair and imperfections is excessive, we do not recommend using clear epoxy. If the cracks are minimal, use ZeraBond™ Type 3 clear epoxy gel. Grind the surface after the gel is firmly cured to smooth it for the application of the topcoat.

### AREA PREPARATION

For optimal performance, both the coating and substrate should be maintained at 18 to 30°C (68 to 86°F) for 24 hours prior to beginning work. The same temperature range

should be maintained during mixing, application, and cure.

Application in direct sunlight and rising surface temperatures may result in blistering of materials due to expansion of entrapped air or moisture in the substrate. Concrete that has been in direct sunlight must be shaded 24 hours prior to application and remain shaded until after the initial set.

### OFF-GASSING

The off-gassing is not a by-product of the epoxy coating, but of the displacement of air in the concrete. It depends on the density/PSI (compressive strength of the concrete); the lower the psi and/or water added to the concrete during pouring, the more off-gassing in the concrete. If the concrete is spongy or very porous, it is recommended to apply an epoxy primer first (refer to product data sheet or call Zeraus for recommendations). Alternatively add 2% of ZeraSolv to **ZeraKlear™ CR** to facilitate the penetration, the priming coat must be very thin and be pulled tight with a flat squeegee. If you need to have a thicker film to smooth the concrete, it is recommended, after the first pass, to apply wet on wet within 30 minutes at 8 mils film thickness.

### APPLICATION

**ZeraKlear™ CR** is a self-priming product that requires no primer when the concrete substrate is dry.

The mixing equipment used to mix the coating must be clean and free of any contaminants that may be present in the equipment from previously used products.

Two coats are recommended (one prime coat and one top coat) The first coat is applied at 4 mils whereas the second coat is applied at 8 mils.

- Pre-mix at low speed component “A” of **ZeraKlear™ CR** first to ensure uniformity. Pour all of the liquid from Part B into a Part A container.
- Mix thoroughly using a slow speed ½ inch drill motor with “jiffy” type blade for two minutes (minimum). Scrape the sides of the container and continue mixing until the coating is uniform.
- Immediately pour all mixed coating onto the edges of the prepared floor and spread the material evenly with

a flat squeegee. Use a lint free 6 mm nap roller to back roll the applied material to an even coat. Care should be taken not to over-roll the material as air may become entrapped in the coating.

- Apply the second coat in the same manner as the first (a notched squeegee may be used in the second coat to produce a thicker film).
- If a non-slip sanded surface is required, a properly graded, dry, contaminant free grit should be broadcast on the surface of the top coat and back roll to encapsulate the aggregate onto the coating.
- Allow to cure thoroughly overnight (16 hours) before exposing to foot or light duty traffic. It requires 24-36 hours for vehicular traffic and 7 days for full service. Keep water & detergent away from the floor until fully cured.

**Caution:** Do not over mix or mix vigorously to avoid bubble formation, leading to a milky finish. Mix slowly and keep the blade deeper (away) from the surface during the mixing.

### LIMITATIONS

- Do not apply **ZeraKlear™ CR** if the substrate and ambient temperature are below 12°C (54°F) or 18°C (65°F) for countertop applications.
- Do not hand-mix **ZeraKlear™**, mechanical-mix only.
- Maximum relative humidity during application and cure is 85%.
- Do not apply to porous surfaces where moisture vapour transmission will occur during application.
- Protect from dampness, condensation and water contact during the initial 24-48-hour cure period.
- Do not apply over damp surfaces unless using the waterborne epoxy primer **ZeraPrime™ W-48FS**.
- Do not use with other standard epoxy primers as it may cause discolouration.
- May slightly discolour upon direct exposure to sunlight.
- It is not recommended for areas subjected to steam cleaning, harsh chemicals, heavy impact or high heat.
- Do not apply the topcoat less than 8 mils as an orange peel finish may appear due to insufficient material to self-level.

- Do not leave mixed material (Part A & B together) in the container for an extended amount of time; it will harden, warm up and smoke.
- It is not recommended for severely damaged floors with excessive repair; do not use dark or coloured repair material (gel) with clear epoxy topcoat.
- Do not use over the existing floor without testing both the inter-coat adhesion as well as the adhesion of the existing floor to the concrete.
- Do not thin the **topcoat** with a solvent or thinner. The prime coat can be extended in certain situations with **ZeraSolv™** up to ½ litre per 11 L unit (add the solvent after thoroughly mixing part A & B together). Ensure that the solvent has exited before applying the second coat.

using, the user is urged to pre-test the products in his/her own environment to determine the suitability of the products for their intended use, and the user assumes all risk and liability whatsoever in connection therewith.

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## **COVERAGE**

@ 12 mil dry film thickness:

Prime Coat: (4 mils): 10 m<sup>2</sup>/litre (400 ft<sup>2</sup>/U.S. gallon)

Second Coat (8 mils): 5 m<sup>2</sup>/litre (200 ft<sup>2</sup>/U.S. gallon)

## **PACKAGING**

11 litre (2.9 U.S. gal.) kit units

56.7 litre (15 U.S. gal.) units

## **CLEAN UP**

Clean all tools and equipment with xylene prior to the material setting.

## **SAFETY PRECAUTIONS**

Consult the Material Safety Data Sheet (MSDS) for specific instructions.

## **STORAGE**

Store in a heated warehouse. Do not freeze.

## **SHELL LIFE**

Two years from the date of manufacture if kept in the original unopened containers under normal heated warehouse conditions.

## **WARRANTY**

"The recommendations made and the information herein is the result of accurate laboratory and field tests under controlled conditions. We guarantee that the quality and properties of the materials supplied conform to our standards. Zeraus Products Inc. makes no warranties, expressed or implied, as uses and applications are beyond our control. Zeraus Products Inc. shall not be liable for any injury, loss, or damage (direct or consequential) arising from use or inability to use the products. Before