



# ZeraCrystal™

## Crystal Clear Decorative Epoxy Resin

### DESCRIPTION

ZeraCrystal™ is a two-component, 100% solids, crystal clear epoxy resin that provides an attractive, high gloss tough material to be used for a wide range of applications. It is highly resistant to yellowing and best in its class for UV resistance. It is designed to be applied at minimum 20 mils film thickness up to 5cm (2 inches) in a single coat application without generating exothermic heat or shrinkage.

For certain applications, ZeraBrite™ SA (clear polyaspartic coating) may be use as a topcoat to protect against scratches and heavy abrasion traffic.

### WHERE TO USE

ZeraCrystal™ is recommended to be used as casting materials or for countertops and decorative flooring that requires a high level of transparency and clarity. It is also recommended for coating wood, veneer, clocks, plaques, and any other interior decorative items that will not be subjected to direct heat.

ZeraCrystal™ may be used for river stone epoxy driveway systems, decorative multi-colour epoxy flooring as well as a variety of other decorative applications that require the clarity and transparency of hard surface epoxy coating.

### BENEFITS

- 100% solids, odourless; zero VOC's
- Easy to apply with no odour
- Excellent clarity
- Attractive high gloss finish with good gloss retention
- Resistant to staining and yellowing; very light ambering, even outdoor
- Exceptionally high surface hardness
- Outstanding water spotting resistance
- Non-toxic ; approved by CFIA for food contact
- Easily cleaned and maintained

### HANDLING PROPERTIES @ 23°C (74°F)

Mix Ratio, by volume .....2 part A: 1 part B  
 Viscosity (Mixed) ..... 600 cps  
 Solids Content ..... 100%  
 Mixed Weight (Density).....1.09 kg/litre (9.1 lb./US gal)  
 Pot Life (Working Time)..... 30 mins  
 Set Time (20 mils).....24 hours  
 Full Cure and hardness ..... 7 days  
 Hardness (Shore D) ..... 79

Abrasion Resistance ..... 76 mg loss  
Taber Abrasion, C-17 Wheel, 1000 cycles

### SURFACE PREPARATION

ZeraCrystal™ should be applied over clean, sound and dust-free surfaces.

### AREA PREPARATION

For optimal performance, both the coating and substrate should be maintained at 18 to 30°C (68-86°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 the expansion of entrapped air or moisture in the substrate. Concrete that has been in direct sunlight must be shaded for 24 hours prior to the application and remain shaded until after the initial set.

### PRIMING

For a flooring application over concrete ZeraCrystal™ must be used over epoxy primers (clear or coloured) to ensure elimination of outgassing. For highly decorative applications ZeraCrystal™ can be used as self-primed material provided the first coat over concrete is applied in a thin film (5 mils) to avoid outgassing (bubbling) off the concrete surface.

### APPLICATION

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.

Combine Part A and Part B together. Mix thoroughly using a slow speed ½ inch drill motor with a “jiffy” type blade for two minutes (minimum). The blade must be deep under the surface of the liquid to avoid entrapping the air. 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 surface and spread the material evenly with a notch squeegee. For the coating application 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. Allow to cure thoroughly overnight (16-24 hours).

**Caution:** Do not overmix 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.

## High Gloss Bar & Table Tops:

Apply **ZeraCrystal™** evenly with a flexible squeegee. Use a brush for touching up the sides of difficult-to-reach places. Allow the coating to level; bubbles may arise on the surface. This may be broken with a spike roller (use the metallic type with very thin (needle-like) spikes. Do not disturb the epoxy too close to the curing time as it may make permanent defects or marks on the surface. If there is a stubborn bubble, just pop it with a needle. Do not use a hair dryer as it may cause waving damages.

## LIMITATIONS

- Do not apply **ZeraCrystal™** if the substrate and ambient temperatures are below 12°C (54°F) or 18°C (65°F) for countertop applications.
- Do not hand-mix **ZeraCrystal™**; mechanical mix only.
- Do not apply higher than 5 cm without prior testing.
- The product is slow curing (slow in hardness development) particularly in a thin film.
- Maximum relative humidity during application and cure is 85%.
- Do not apply to porous surfaces where moisture vapor transmission will occur during the application.
- Protect from dampness, condensation, and water contact during the initial 24-48-hour cure period.
- Do not use with other standard epoxy primers as it may cause discoloration.
- May slightly discolor (amber) upon direct exposure to sunlight for extended period of time.
- It is not recommended for areas subjected to steam cleaning, harsh chemicals, or heavy impact.
- It is not recommended for areas subjected to high heat.
- 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.
- Do not use over the existing floor without testing both the intercoat adhesion as well as the adhesion of the existing floor to the concrete.
- Do not thin the **topcoat** with solvent or thinner.

## COVERAGE

@20 mil thickness: 5 m<sup>2</sup>/litre (80 ft<sup>2</sup>/U.S. gallon)

@80 mil (2mm) thickness: 1.25 m<sup>2</sup>/litre (20 ft<sup>2</sup>/U.S. gallon)

@1cm (0.4 inch) 0.25 m<sup>2</sup>/litre (4 ft<sup>2</sup>/U.S. gallon)

## PACKAGING

2.85 litre (0.8 U.S. gal) units

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

## CLEAN UP

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

## SAFETY PRECAUTION

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 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 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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