



ZeraKlear™

High Performance Clear Epoxy Coating

DESCRIPTION

ZeraKlear™ is a two-component, 100% solids, low viscosity clear epoxy coating that provides an attractive tough and durable finish. ZeraKlear™ is versatile, and can be applied as a smooth or non-slip coating, depending on the customer's requirements. ZeraKlear™ is recommended only for indoor applications.

WHERE TO USE

ZeraKlear™ is suitable for hospitals, laboratories, basement, retail, shopping malls, locker rooms, washrooms, institution buildings, fire stations, warehouse facilities, storage areas, recreational complexes, studios, auto-body and workshops, etc.

For decorative applications in areas that may be subjected to direct or indirect sunlight, we recommend using ZeraKlear UL.

BENEFITS

- 100% solids, odourless; zero VOC's
- Easy to apply, clean, and maintain.
- Attractive high gloss finish with good gloss retention
- Excellent bond to concrete
- Tough, highly durable
- Good flexibility sustaining impact
- Outstanding water resistance
- Water spot resistance

HANDLING PROPERTIES @ 23°C (74°F)

Mixing Ration, by volume	2 parts A: 1 part B
Viscosity (Mixed)	700 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.....	81 mg loss
Taber Abrasion, C-17 Wheel, 1000 cycles	

FLOORING APPLICATION

SURFACE PREPARATION

ZeraKlear™ 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):

Shot-blast 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 top coat. 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 top coat.

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 for 24 hours prior to application and must 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™** 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.

PRIMING

ZeraKlear™ is a self-priming product that requires no primer when the concrete substrate is dry. However, like any other epoxy product on the market, **ZeraKlear™** tends to darken the concrete. **ZeraPrime™ W-50UL** provides a lighter colour of concrete as a primer and allows for faster application of top coat of **ZeraKlear™** in the same day. It is also the best choice for application over fresh 7 days old concrete or over damp surfaces.

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.

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™** 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.

Matte or Satin Finish:

We recommend using two coats of high scratch resistant clear waterborne urethane coating, **ZeraTuf™ W-104** over the epoxy to control the gloss and produce a very attractive finish. However, these products are recommended for foot traffic decorative applications such as retail stores and shopping malls, restaurants and bars, showrooms, studios, walkways, offices, etc.

LIMITATIONS

- Do not apply **ZeraKlear™** if the substrate and ambient temperature are below 12°C (54°F) or 18°C (65°F) for countertop applications.
- Do not use for decorative applications that may be subjected to sunlight exposure direct or indirect.

- Not recommended for decorative applications, except for basements or commercial indoor applications.
- Not recommended as top coat over flake system or multi-colour decorative systems in residential garages.
- 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.
- Will 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 top coat 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 top coat.
- 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.
- Avoid contact with water/moisture during the application and for at least 4 days after the application.
- Do not thin the **top coat** 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 existed before applying the second coat.

COVERAGE

@ 10 mil dry film thickness:

Prime Coat: (4 mils): 10 m²/litre (400 ft²/U.S. gallon)

Second Coat (8 mils): 5 m²/litre (200 ft²/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 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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