

ZeraDur 100 SC™

“DIY” solvent-free, slow curing epoxy coating

ZeraDur 100 SC is a 100% solids, solvent-free, slow curing 2-part epoxy floor coating that an average homeowner can install in two days. It is a self-priming coating which can be used with or without a primer. **ZeraDur 100 SC** is versatile, it can be applied as a smooth high gloss coating or made non-slip through the use of a specialty additive. **ZeraDur 100 SC** produces a uniform, aesthetically pleasing and durable finish. **ZeraDur 100 SC** is offered in Grey, Tan and Clear.

HANDLING PROPERTIES @ 23°C (74°F)

Mixing Ratio, by volume	2 parts A: 1 part B
Solids	100 %
Application Temperature	10°C- 30°C (50°F-86°F)
Thin Film Set Time	24 hours
Foot Traffic (re-coat)	24 hours
Vehicular/ Forklift Traffic	48 hours
Full Cure and Maximum Resistance	7 days

APPLICATIONS

For most applications, including garage floors, we recommend a two-coat application. For optimal performance, a first coat of **ZeraDite™** or **ZeraPrime 95DS** epoxy primer (to be applied as a very thin film) should be used before the top coat of **ZeraDur 100 SC™** in conjunction with a non-slip additive. The primer (**ZeraDite™**) will enhance the adhesion to concrete substrates (dry or damp) as well as sealing the concrete from outgassing (large bubbles).

ZeraDur 100 SC™ is particularly suited for flake-embedded systems, in conjunction with a clear topcoat (**ZeraDur 100 SC™ Clear**). In this case, the non-slip additive is to be added to the clear coat.

For standard epoxy smooth floor applications, the same procedure is recommended without the use of a non-slip additive. However, it is advised to use a thicker coat (one gallon per 125 - 150 sq. ft. coverage) in order to obtain a leveled smooth finish.

PREPARATION

The coating should be applied over clean, sound, dust free surfaces.

- Remove all items from the garage and thoroughly sweep all dirt and dust.

- Ideally before you start, the outside temperature should be between 18°C to 26°C, relative humidity is below 80% and the garage floor should be protected from wind-blown debris.
- You must precondition the material @19-25°C for 24 hours prior to the application to prevent problems with higher viscosity (thicker material) and slow curing during cold temperatures or very fast setting times during the summer heat.
- Tape off walls, baseboard trims, posts, floor draining plates and door thresholds as well as the area directly underneath the garage door with masking or duct tape, allowing you to shut the door overnight. This is intended to keep out dust and debris. Also tape off the doorway leading to the garage from the house.
- When you start applying **ZeraDur 100 SC™**, use a trim pad to cut coating along the edges.

For best results, surfaces should be prepared as follows:

Concrete slab preparation:

- Concrete should be a minimum of 28 days old. Regardless if the concrete is new or old; it has to be prepared properly for a successful installation. The most effective way for preparation of the garage floor is to grind the floor to ensure a thorough and deep profile for adhesion.
- Alternatively, an acid-etching technique can be used providing care is taken regarding the safe handling of the acid and avoiding contamination of the adjacent surfaces such as walls, doors, driveways, etc.
- Removing all oil, grease, dirt and any unsound concrete by using a combination of commercial acid-etching and water power washing should be sufficient.
- For severely damaged concrete, use **ZeraKrete™** to smooth the floor (call us for detail).

Removing oil & grease:

- Apply a high quality commercial de-greaser. Let the detergent sit for 45 minutes, then pour boiling water on the area and vigorously scrub the stained area.
- Conduct the “water test” by spraying water mist over the stained area. If the water beads then repeat the same treatment again.

Old painted concrete:

- If a previous epoxy coating is well bonded, sand the surface with 100 mesh sand paper to ensure a tight bond between the two coatings. Rinse thoroughly.
- Latex paints, oil-based paints or sealers must be removed using grinding or other mechanical means.

Acid etching the concrete:

This method is only acceptable for new or never-before painted concrete flooring. It is never recommended for concrete flooring that has old paint or sealer unless you first remove entirely the old paint or sealer by other means such as sanding with 30 grit sandpaper.

Please adhere tightly to the following instructions:

- Dilute the commercial muriatic acid or **ZeraEtch** with water at one part of acid and two parts of water.
- The application rate of the diluted acid required is about 500 ml/m² (1 pint/10 ft²); do not allow acid solution to form pools on the floor.
- Use a plastic watering container to evenly distribute the solution or spread the solution using a broom over the entire floor.
- The acid solution should be worked onto the surface by hard-bristled brooms until complete wetting and coverage is obtained. The acid will react with the concrete surface (for about 5 minutes) and bubble vigorously. During this time, brushing should continue.
- Before rinsing, look for areas where bubbling did not occur. These areas may require further application of the acid solution.
- After 10-15 minutes, the bubbling will have subsided (acid solution has stopped foaming) and a slurry substance will remain on the surface. Power wash the floor very well (or use a garden hose) with clean water.

Repairing the cracks (if applicable):

- First thing in the morning, after the floor has dried out, fill 1/4 inch cracks and larger holes or spalled areas with **ZeraBond™** Type 3 (epoxy crack filler). Use a plastic putty knife or triangle wide spatula to scrape the surface level and smooth. Let this dry for 6-12 hours before you begin applying the coating.
- Most large area concrete floors have joints and seams which allow for movement and expansion. Do not fill these seams with epoxy garage floor coating. Instead, use an epoxy urethane joint filler such as **ZeraJoint**.

Temperature & humidity:

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. 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 exposed to direct sunlight must be shaded for 24 hours prior to application and remain shaded until after the initial set. Avoid the application during high humidity above 80%.

Outgassing:

To minimize outgassing (formation of large bubbles and craters) you must apply the first thin coat using a flat squeegee and then a roller to level the coating, pushing it into the voids of the concrete floor. You must keep the garage door closed to prevent the sun from warming the floor which could worsen the outgassing. Apply the first coat early in the morning or late afternoon, and ensure that the surface is dry.

Primer application:

Pour all liquid of component “B” of **ZeraDite™** into the component “A” container and mix thoroughly for one minute. Apply the primer evenly and very thinly using a flat squeegee and 6mm roller. Allow the primer to stand overnight before applying the topcoat.

Topcoat application:

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

- First premix component “A” of **ZeraDur 100 SC™** to eliminate the possibility of settlement. Then pour all of the liquid from Part B into the Part A container.
- Mix thoroughly using a slow speed drill equipped with a mixing blade for one minute until the color is uniform. If a non-slip finish is required, add the non-slip additive (provided with the one gallon kit) into the mixed material and disperse for at least another two minutes. ***Make sure to scrape the sides of the can into the coating and mix it well to prevent the formation of tacky (gummy) patches in the coating which will never firmly dry.***

- Immediately pour all mixed coating onto the edges of prepared floor and spread the material evenly with a notched squeegee. Using a lint free 6 mm nap roller back roll the applied material to provide an even coat. Care should be taken not to over-roll the material as air may become entrapped in the coating.
- Allow the topcoat to cure thoroughly for 24 hours for foot traffic. Colder temperature will take longer to set and warmer temperature will shorten the time to cure. It takes 7 days to achieve a full cure (full service). **Keep water, cleaners and other liquid spillage away from the coating for at least one week.**

COVERAGE

Pour all liquid of component “B” of **ZeraDite™** into the component “A” container and mix thoroughly for one minute. Apply the primer evenly and very thinly using a flat squeegee and 6mm roller. Allow the primer to stand overnight before applying the topcoat.

PACKAGING

ZeraDur 100 SC™ : 11.34 litre/ 3.0 U.S. gal. units
ZeraDite™ : 3.0 litre/ 0.75 U.S. gal. units

CLEAN UP

Clean all equipment and installation tools immediately with acetone or xylene.

LIMITATIONS

- Do not apply on untreated floors; the concrete must be prepared by shot-blasting or an equivalent technique, or acid etched for proper adhesion.
- Do not apply **ZeraDur 100 SC™** on a tacky primer; the primer coat must be dry and firm.
- Do not use a paint tray to apply the coating; follow the recommended technique described above.
- Do not apply if the level of moisture in the concrete is too high.
- Do not apply over poorly-bonded old paint.
- Not recommended for exterior applications.
- Do not hand-mix the coating.

- Do not leave the mixed materials in the container for a long time (particularly during the summer) otherwise the coating will harden in the container and heat up possibly resulting in smoke.
- **ZeraDur 100 SC™** is a slow curing product; requiring 3 days of curing for vehicular traffic.
- Do not subject the coating to water, cleaners or chemicals for 7 days after the application.
- For a non-slip finish, do not apply the coating heavily otherwise the finish will not be non-slip.
- Outgassing may occur from time to time due to poor quality concrete; apply at least two thin coats, if necessary, of **ZeraDite™** to seal the concrete from outgassing; a third coat of **ZeraDur 100 SC™** is needed to produce the desired smooth finish.
- The product has a slight “orange peel” finish if applied in a thin film. Do not stretch **ZeraDur 100 SC™** too thinly as it will produce an orange peel finish and poor surface hiding.

MAINTENANCE

Please follow the following guidelines:

- Where possible use only warm water for floor cleaning. Do not use hot water or steam.
- If oils, grease or hydraulic fluids/emulsions are present, clean the floor using warm water containing a detergent such as ordinary powdered laundry detergent or a dish washing liquid soap.
- For spillage of battery acid or alcoholic beverage, dilute immediately with water and rinse it thoroughly.
- Avoid using any solvent, pine-sol type products or cleaning detergents containing water soluble solvents, as these compounds may dull the finish.
- **ZeraCitrin™** cleaner and disinfectant is based on a weak organic acid, like those produced from citrus fruits. It does good a job in cleaning floors and it will not damage epoxy.

SHELF LIFE

Two years from the date of manufacture if kept in original unopened containers under normal heated warehouse conditions. Where possible use only warm water for floor cleaning. Do not use hot water or steam.

Disclaimer: Although ZeraDur 100 SC™ can be made non-slip using the above described technique, floors may still become slippery under certain conditions. Therefore, it is your own responsibility to determine the level and type of slip resistance that suits your specific needs. We recommend the use of additional slip-resistant aggregates in your floor if it will be exposed to wet, icy or oily conditions.

SAFETY PRECAUTIONS

Consult the Safety Data Sheet (SDS) for specific instructions.

PART A: COMBUSTIBLE. HARMFUL IF SWALLOWED OR INHALED. SKIN AND EYE IRRITANT.

PART B: CORROSIVE MATERIAL.

Precautions:

- **Keep container closed**
- **Keep away from children**
- **Use only with adequate ventilation & avoid breathing in vapors**
- **Wash thoroughly after handling**
- **Avoid contact with eyes, skin and clothing**
- **Do not dispose down the drains**

When handling product, wear long sleeves, latex gloves and safety glasses, especially during mixing.

Emergency procedures:

INHALATION: In the case of overexposure, remove to fresh air. Get immediate medical attention if the victim is in respiratory distress.

EYE CONTACT: Flush eyes immediately with large amounts of running water for at least 15 minutes while holding eyelids open until irritation subsides. Obtain medical attention immediately.

SKIN CONTACT: Wash immediately with plenty of soap and water. Remove and clean all contaminated clothing and launder before reuse.

INGESTION: If swallowed, drink two glasses of water. Do not induce vomiting. Do not give anything to the mouth of an unconscious person. Get prompt medical attention.

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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