

ZeraDur™ 102 UL

UV-Resilient Epoxy Floor Coating

DESCRIPTION

ZeraDur™ 102UL is an advanced, two-component, 100% solids epoxy coating that provides an aesthetically pleasing tough, and high gloss show-room quality finish for interior concrete floors.

ZeraDur™ 102UL is specially formulated based on colour stable cycloaliphatic amine hardener, as well as state-of-the art UV blocker/stabilizer additives. Together **this provides the highest possible resistance to ultra violet light colour change, loss of gloss or surface degradation over time.**

When considering long term UV stability, ZeraDur™ 102UL is not on par with aliphatic urethane, polyaspartic acid coating or acrylic MMA. However, it is the best in its class of high performance epoxy, and in the overall market, in terms of colour stability. Unlike polyaspartic acid, ZeraDur™ 102UL can be used in a thicker film up to 20 mils in a one-step application.

WHERE TO USE

ZeraDur™ 102 UL is recommended for use in areas where high performance combined with highly attractive appearance are the major concern. It is especially suited for dealership showrooms and residential parking garages that may be subjected to intermittent direct sun exposure.

ZeraDur™ 102 UL is ideal for art galleries, studios, retail floors, casinos, furniture stores, institutional buildings, hospitals, laboratories, and etc.

BENEFITS

- 100% solids, with low odor, zero VOC's
- Very attractive, showroom quality, high gloss finish
- Outstanding non-yellowing for indoor applications with a cycloaliphatic amine based hardener
- Good wear resistance
- Chemical resistance to household chemicals and cleaners; resistance to staining
- Excellent film appearance and colour fastness
- Excellent water spotting resistance
- Does not support growth of bacteria or fungus
- Easily cleaned and maintained
- Available in oyster grey and a variety of standard colours (11L units)

HANDLING PROPERTIES @ 23°C (74°F)

Mix Ratio, by volume2 parts A: 1 part B
Viscosity (Mixed)..... 1000 cps

Solids Content	100 %
Mixed Weight (Density)	1.2 kg/litre (10 lb./US gal)
Pot Life.....	30 minutes
Thin Film Set Time	12 hours
Foot Traffic	16 hours
Light Vehicular Traffic	24 hours
Full Cure and Maximum Resistance	7 days
Hardness (Shore D)	80
Tensile Elongation	10% @ break (ASTM D638-86)
Tensile Strength	20 Mpa (2900 psi) (ASTM D638-86)
Hardness (Shore D)	80 (ASTM D2240-86)
Impact Resistance	pass 160 in/lb. (ASTM D2794)
Abrasion Resistance (ASTM D4060)	84mg loss
Taber Abrasion, C-17 Wheel, 1000 cycles	

SURFACE PREPARATION

ZeraDur™ 102 UL 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 coating.

Steel:

Remove greases, oils and contaminants from surfaces and sandblast to white metals. Prime using ZeraPrime™ 100FS or ZeraPrime™ 95DS.

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 **ZeraDur™ 102 UL** 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, apply wet on wet within 30 minutes at 8 mils film thickness.

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 epoxy prime coat (either using **ZeraPrime™ 100FS** or **ZeraPrime™ 95DS**) and one top coat of **ZeraDur™ 102 UL**.

- Pre-mix component “A” of **ZeraDur™ 102 UL** first to eliminate the possibility of settlement. 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 color is uniform.
- Immediately pour all mixed coating onto the edges of prepared floor and spread the material evenly with a flat 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.
- 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 hours for vehicular traffic and 7 days for full service.

Keep water & detergent away from the floor until fully cured.

LIMITATIONS

- Do not apply **ZeraDur™ 102 UL** if the substrate and ambient temperatures are below 10°C (50°F).
- Do not apply the topcoat less than 10 mils as an orange peel finish may appear or bubbling may occur 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 and warm up and smoke.
- Not recommended for areas subjected to steam cleaning, harsh chemicals or heavy impact.
- Do not use over existing floor without testing both the inter-coat adhesion as well as the adhesion of the existing floor to concrete.
- Never apply the topcoat over tacky or partially wet primer.
- Not recommended as a water-proofing coating in suspended boiler rooms or commercial parking garages.
- Do not apply in areas where the humidity is greater than 85%.
- Do not use on slab-on-grade without vapor barrier.

COVERAGE

10 mils dry film thickness: 2.7 m²/litre (110 f²/U.S. gallon)

15 mils dry film thickness: 4 m²/litre (160 f²/U.S. gallon)

PACKAGING

3.79 litre/1 U.S. gal. units

11 litre/2.9 U.S. gal. units

CLEAN UP

Clean all equipment and installation tools immediately after use with xylene.

SAFETY PRECAUTION

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

STORAGE

Store in a heated warehouse. Do not freeze.

SHELF LIFE

One year 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

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