

# TECHNICAL DATA- GE-100 SEAMLESS EPOXY COATING

## DESCRIPTION:

GE-100 is a two component 100% solids epoxy seal coat that is used for wide variety of applications such as 3D metallic systems or thick build for decorative concrete materials. You can fill GlobMarble GE-100 seamless epoxy coating with marble chips, paint chips, and colored sand mixtures for an infinite array of patterns and color schemes.

GlobMarble GE-100 seamless epoxy coating recommended for restrooms, warehouses, kitchens, and any other areas where either a high build layered clear product is needed, or for any decorative filled floor.

## SPECIFICATIONS:

### RECOMMENDED FILM THICKNESS:

16-18 mils

### COVERAGE PER GALLON:

90-100 square feet (8 m<sup>2</sup> to 10m<sup>2</sup>) at 16-18 mils

### PACKAGING INFORMATION

3-gallon kits

15-gallon kits

### EPOXY MIX RATIO:

9.35 pounds part A (1 gallon) to 4.15 pounds part B (0.5 gallon)

### SHELF LIFE:

1 year for unopened product.

### SOLIDS BY WEIGHT:

100%

### SOLIDS BY VOLUME:

100%

### VOLATILE ORGANIC CONTENT:

Less than 0.4% (4 grams per liter)

### PRODUCT STANDARD COLORS:

Clear – gardner color 1-2

### FINISH CHARACTERISTICS:

Gloss (60 to 90 at 60 degrees at glossmeter)

### ABRASION RESISTANCE:

Taber abraser CS-17 calibrase wheel with 1000-gram total load and 500 cycles - 27 mg loss

### FLEXURAL STRENGTH:

7,800 psi @ ASTM D790

### COMPRESSIVE STRENGTH:

10, 100 psi @ ASTM D695

### ADHESION:

350 psi @ elcometer (concrete failure, no delamination)

### VISCOSITY:

Mixed = 1000-2000 cps (normal)

### DOT CLASSIFICATIONS:

Part A “not regulated”

Part B “CORROSIVE LIQUID N.O.S., 8, UN11760, PGIII”

### TENSILE STRENGTH:

7,300 psi @ ASTM D638

### ULTIMATE ELONGATION:

2.8%

### GARDNER VARIABLE IMPACTOR:

40-inch pounds direct – passed

### HARDNESS:

Shore D = 82

### CURE RATES: 70F (21C)

pot life – 150 gram mass.....20-30 minutes

tack free (dry to touch).....6-10 hours

recoat or topcoat..... 10-16 hours

light foot traffic.....16-24 hours

full cure (heavy traffic)... .....3-7 days

### APPLICATION TEMPERATURE:

55-90 degrees F (10-32C)

### CHEMICAL RESISTANCE:

REAGENT	RATING
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butanol	C
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xylene	C
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1, 1, 1 trichloroethane	B
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MEK	A
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methanol	A
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ethyl alcohol	C
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skydrol	B
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10% sodium hydroxide	E
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50% sodium hydroxide	D
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10% sulfuric acid	C
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70% sulfuric acid	A
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10% HCl (aq)	C
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5% acetic acid	B
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Rating key: A - not recommended, B - 2 hour term splash spill, C - 8

hour term splash spill, D - 72 hour immersion, E - long term immersion.

NOTE: extensive chemical resistance information is available through your sales representative.

### PRIMER:

Recommended GE-10W clear, GE-C10W pigmented

### TOPCOAT:

Optional – GU20/GU20W aliphatic urethanes or successive coats or GE-100 in aggregate filled systems, with or without a clear urethane topcoat.

### LIMITATIONS:

\* Product is strictly for interior usage, gloss effect or color stability might be affected by environmental conditions like UV exposure, chemical exposure, high humidity, or exposure to lighting such as sodium vapor lights.

\*Color might vary from batch to batch. We recommend to use GE-100 seamless epoxy coating from the same batch for the entire job.

\*This seamless epoxy binder is not UV color stable. Clear aliphatic urethane topcoats reduce color changes from UV light.

\*Surfaces temperature must be 5°F above the dew point.

\*For best results, apply with a ¼” nap roller.

\*All new concrete must be cured for at least 30 days prior to application.

\*Apply GE-10W water-based epoxy primer or 100% solids primer before using this epoxy coating.

\*See reverse side for application instructions.

\*Physical properties are typical values and not specifications.

\*See reverse side for limitations of our liability and warranty

## **MIXING AND APPLICATION INSTRUCTIONS (GE-100)**

1) **PRODUCT STORAGE:** Store GE-100 seamless epoxy coating in a room temperature area. Prolonged storage should be anywhere between 60- and 90-degree F (16-32 C). Low temperatures and/or temperature fluctuations may cause crystallization of the epoxy binder.

2) **SURFACE PREPARATION:** Prepare surface according to the type of complete system to be applied. All dirt, oil, dust, sealers, paint and other contaminants shall be removed to assure proper bonding to the substrate. Use mechanical scarification or acid etching until a desirable result is achieved. Diamond grinding or shot blasting recommended for a best result. Patching may be required prior to application of 100% solid seamless epoxy coating. Make a test to determine that the concrete has an appropriate vapor barrier by placing a 4'X4' plastic sheet on the substrate and taping down the edges. If after 24 hours the substrate is still dry under the plastic sheet, then the substrate has no signs of eventual hydrostatic pressure problems that may later cause disbanding. This product can be applied to a damp floor.

3) **PRIMING:** A suitable primer should always be applied before using this seamless epoxy binder. See beginning for primer information. If a primer is not used, porous surfaces can cause outgassing, bumps, and a variety of product defects.

Screen the primer coat with a 100 grit sanding screen on a rotational floor machine. This screening will ensure not only a good bond between coats, but also eliminate any debris or dust that may have settled onto the preceding coat as it was curing. Follow screening with vacuuming. Follow vacuuming with a micro-fiber wipe with a solvent such as xylene or acetone.

4) **MIXING AND HANDLING:** GE-100 seamless epoxy coating has a mix ratio of 9.35# part A to 4.15# part B (2 parts A to 1 part B). Standard packages are in pre-measured kits and should be mixed as supplied. We highly recommend measuring carefully and precisely, not just estimated. Pour 1 part B to 2 parts A. After combining both parts, mix them well with slow speed mixing equipment (like a jiffy mixer) until the material is thoroughly mixed for 3 minutes and has no streaks. After mixing, transfer the mixed material to another pail and mix again. This is done to avoid unmixed material ruining your work. Your material is now ready to be applied on the primed surface. Improper mixing may result in product failure. Once A & B parts are mixed, the catalyzed GE-100 seamless epoxy should be placed on floor immediately. Left epoxy in pail will cure at accelerated rate. Do not leave pail upside down to drain onto floor. Any un-mixed portion of A or B that may have accidentally been placed onto side of pail can now drain down onto the floor, creating a spot that will not cure.

5) **PRODUCT APPLICATION:** Spiked shoes are required throughout application. The material can be applied by brush, roller or a serrated squeegee as long as it is back rolled, and the appropriate thickness is maintained. Keep temperatures and relative humidity within the recommended ranges during both the application and curing process. If over aggressive mixing or concrete conditions cause air entrapment, use an air release roller tool on your coat. GE-100 seamless epoxy coating can be used with many varieties of colored sand or any other broadcast particle to achieve a wide variety of patterns and color. When using as a broadcast binder, begin with a test area to ensure desired results. Contact your representative for details as necessary.

6) **RECOAT OR TOPCOATING:** If you decide to recoat or topcoat this seamless epoxy binder, you must first be sure that the coating has tacked off before recoating. Always remember that colder temperatures will require more cure time prior to recoating or topcoating. Before recoat or topcoat check the coating to ensure no epoxy blushes have developed (deglossing, or a white, greasy film). Remove them before recoating or topcoating. If Top Coat has cured beyond 12 -24 hours or if dust or debris has settled into it as it cured, it must be screened with a rotational floor machine equipped with a 100 grit sanding screen. Follow screening with vacuuming. Follow vacuuming with a micro-fiber wipe with denatured alcohol.

There are several choices that have varying advantages for the Top Coat:

- **GU-20** – *Polyurethane SB (gloss)* – high gloss
- **GU-20WG** – *Polyurethane WB (-gloss)* –
- **GP-20** – *Polyaspartic* – (high gloss) – quick dry, moderate build

7) **CLEANUP:** Use xylol.

8) **FLOOR CLEANING:** Caution! Some cleaners may alter the color, and we strongly recommend testing each cleaner in a small area.

8) **RESTRICTIONS:** Keep floor use at a light traffic and use non-harsh chemicals until the coating is fully cured (see technical data under full cure). It is best to keep the floor dry for the full cure cycle. Caution! - surface may be slippery, especially when contaminated or wet; keep surface clean and dry.

### **NOTICE TO BUYER: DISCLAIMER OF WARRANTIES AND OUR LIABILITY LIMITATIONS**

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