

TECHNICAL DATA- GE-10W WATER BASED EPOXY

DESCRIPTION:

GE-10W is a two-component water-based epoxy floor coating system that is used in a wide variety of applications, with excellent physical characteristics that rival solvent based coating systems. WE-10W provides excellent abrasion resistance, chemical resistance, and substrate penetration. Durable epoxy coating for both old and new interior concrete floors, primer coat, and binder for *Epoxy flake* and *Metallics*.

GE-10W water-based epoxy is ideally suited for priming or concrete coating, wood or masonry at manufacturing facilities, garage floors, gyms, residential interiors, automotive showrooms, warehouses, bars, clubs, retail stores and more. GE-10W water-based epoxy can withstand exposure to many common solvents and chemicals.

SPECIFICATIONS:

RECOMMENDED FILM THICKNESS:

5 -7 mils per coat wet thickness (yields 2-3 mils dry)

COVERAGE PER GALLON:

229 to 320 square feet (22 m2 to 30m2) @ 5-7 mils wet thickness

PACKAGING:

2 gallon and 5-gallon kits (volume approx.)

EPOXY MIX RATIO:

Colors= 8.55# part A (.80 gallons, approximate) to 1.75# part B (.20 gallons, approximate)

Clear= 6.55# part A (.80 gallons, approximate) to 1.90# part B (.20 gallons, approximate)

SHELF LIFE:

1 year in unopened containers

FINISH CHARACTERISTICS:

Satin gloss (40-80 at 60 degrees @ glossmeter)

SOLIDS BY WEIGHT:

Mixed = 53% (colors); 45% (clear); (+, - 2%)

SOLIDS BY VOLUME:

Mixed = 41% (colors); 36% (clear); (+, - 2%)

VOLATILE ORGANIC CONTENT:

Colors = 1.01 pounds per gallon (mixed) (regulatory VOC = 175g/l)

Clear = 1.0 pounds per gallon (mixed) (regulatory VOC = 230g/l)

PRODUCT STANDARD COLORS:

Light gray and medium gray, off white, tile red, beige, and amber clear.

NOTE: The clear (gardner 11) is not water clear and is not suitable for top coating over previously color coated floors. The clear is suitable as a primer or concrete sealer only.

ABRASION RESISTANCE:

Taber adrasor CS-17 calibrase wheel with 1000-gram total load and 500 cycles = 54 mg loss

IMPACT RESISTANCE:

Gardner Impact, direct = 50 in.lb. (passed)

FLEXIBILITY:

No cracks on a 1/8" mandrel

ADHESION:

425 psi @ elcometer (concrete failure, no delamination)

VISCOSITY:

Mixed = 900-1200 cps (colors); 400-900 cps (clear) (typical)

DOT CLASSIFICATIONS: Not regulated

CURE RATES: 70F (21C)

pot life – 1 gallon volume 1.0 – 1.5 hours

tack free (dry to touch)..... 5-8 hours

recoat or topcoat..... 7-10 hours

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

full cure (heavy traffic).....2-7 days

APPLICATION TEMPERATURE:

50-90 degrees F (10-32C) with relative humidity below 75%

CHEMICAL RESISTANCE:

REAGENT	RATING
acetic acid 5%	B
xylene	B
mek	A
gasoline	B
10% sodium hydroxide	C
50% sodium hydroxide	B
10% sulfuric	B
10% hrdochloric acid	B
20% nitric acid	A
ethylene glycol	C

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:

Primer not required.

TOPCOAT:

Topcoat is optional. Various products can be used as topcoats, including multiple coats of this product as GLOBMARBLE POLYURETHANE, POLYASPARTIC

LIMITATIONS:

Any new concrete must be sufficiently cured for at least 28 days depending to temperature and humidity and 2-3 days. Substrate temperature must be 5°F (3C) above dew point. Slab on grade may require moisture barrier. Improper mixing or too thick application may result in product failure. For best results use premium quality 1/4" or 3/8" nap roller with phenolic core. De-fuzz" roller by wrapping tightly with masking tape and removing tape. Product color will vary from batch to batch. We recommend to use product from the same batch for an entire job. Light or bright colors may require multiple coats or a topcoat to achieve a satisfactory hide, depending on the substrate. Gloss or color may be affected by low temperatures, humidity, chemical exposure or sodium vapor lighting. Product will yellow in the presence of UV light.

MIXING AND APPLICATION INSTRUCTIONS (GE-10W)

1) **PRODUCT STORAGE:** Bring the material to normal room temperature before using. Store product at a temperature between 60- and 90-degrees F (16-32 C). Keep from freezing.

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 GE-10W water-based epoxy. 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) **MIXING AND HANDLING:** Kits of this product should be mixed in their entirety. Mix part A with mechanical mixer for 3 minutes at medium speed for pigment dispersal. Pour part B to part A and mix with mechanical mixer with medium speed for 3 minutes. If using partial kits, refer to the technical data instructions for this product for proper weight mix ratios. After the two parts of the product are combined, mix with slow speed mixing equipment until the material is thoroughly mixed and streak free. Once A & B parts are mixed, the catalyzed GE-10W water-based epoxy should be placed on floor immediately. Left epoxy in pail will cure at accelerated rate.

4) **PRODUCT APPLICATION:** Select appropriate PPE (personal protection equipment). Provide adequate ventilation. Mixed product can be applied by brush or roller. Product becomes hard to apply and will roll back up onto the roller after the end of the pot life; stop application if the coating has reached this stage. Temperatures should be maintained within the ranges recommended in the technical data instructions during the application and curing process. Apply product at humidity within the parameters indicated in the technical data instructions. Variations in gloss may appear if applications are made at different times with different environmental conditions. 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. Products comes pre-measured by weight.

5) **FINISH COAT OR TOPCOATING:** Various material options are suitable for recoating or top coating as

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

Make sure that all of the solvents and water have evaporated from the coating during the curing process if you recoat or topcoat this product. Test the coating before recoating or top coating: press the coating with your thumb to test if the fingerprint impression is left on the surface. If no impression is left, then the recoating or top coating can be started. Inspect the coating to ensure no epoxy blushes were developed before recoating or top coating. Any blush must be removed before to recoating or top coating; use regular detergent cleaner to remove any blush. Colder temperatures require more cure time for the product before recoating or top coating.

6) **CLEAN-UP:** Use solvent as xylene or acetone to clean tools before GE-10W water-based epoxy dries

7) **RESTRICTIONS:** Before the coating is fully cured restrict the use of the floor to light traffic and mild chemicals. Let the floor remain dry for the full cure cycle. Surface may be slippery when wet, keep surface dry and clean. Some cleaners may affect the color of the floor; test each cleaner in a small area to check if the color of the floor is affected. 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.

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