EPOXY 100

PRODUCT TECHNICAL DATA SHEET

GC EPOXY 100 is a solvent-free, no VOCs, virtually odorless two-component epoxy coating system with medium viscosity, which results with excellent resistance to UV rays, with one of the industry's slowest tendencies to yellow over time. The formulation of GC EPOXY 100 is based on the latest technological advancements in cycloaliphatic polyamines, providing outstanding properties and an impeccable aesthetic finish. Additionally, GC EPOXY 100 boasts superior mechanical and chemical properties, making it an ideal choice for both residential and commercial applications. Formulated primarily as a finishing coat, GC EPOXY 100 can also function as a base coat or primer as an undercoat. When Primer is included, minimal surface preparation is required on sound and stable surfaces, no shotblasting, no grinding or scarifying is required.

WHERE TO USE

- Distribution centers, manufacturing, and warehouses facilities.
- Aircraft, Aeronautical and automotive facilities.
- Stadiums and arenas.
- Grocery stores, supermarkets, cafeterias, and wineries.
- Prisons and correctional buildings.
- Transportation and loading docks.
- Hospitals and healthcare facilities.
- Offices, retail stores, restaurants, showrooms.
- Lobbies, shopping malls, automobile dealerships, gyms.
- Garages, kitchens, bathrooms, living rooms.
- Concrete repair and restoration in general.
- Aerospace and marine industries applications.

ADVANTAGES

- Essentially odorless and self-priming.
- Short downtimes.
- Compliant with low volatile organic compounds (VOC) standards.
- Features high color stability.
- High gloss and chemical resistance properties.
- Has the potential for LEED eligibility.
- Seamless system that withstands moderate traffic at a minimal thickness of 8 Mils.
- Provides the industry's best UV resistance.
- Environmentally friendly with 100% solids and no VOCs or solvents.
- Exhibits excellent elongation and abrasion resistance.
- High resistance to amine blush and contaminants.
- Superior mechanical and chemical properties.
- Impermeable and mold resistant.
- High product density prevents dirt penetration and facilitates easy maintenance

PHYSICAL/CHEMICAL CHARACTERISTICS AT 70°F / 21°C & 50% R.H.

Solids content, by volume	100%
Solids content, by weight	100%
Thinner Recommended	None
Pot Life	10-15 min
Opening time on substrate	30-40 min
Recoat Window	8-24 hours
Curing Times	Foot traffic 24 hours Heavy Traffic 48 hours
Bond Resistance (psi) ASTM D4541	>350(substate fails)
Permeability (%), ASTM D570	0,1%
Hardness (Shore D), ASTM D2240	85
Traction resistance (psi), Abrasive resistance, ASTM D4060	75-80mg
ASTM D638	3,900 (26.9mPa)
Compressive Strength (psi), ASTM C579	7,800 (53.7 mPa)
Flammability	Class I (Not considered flammable)
Flash Point	>200 F - >93 C.
Viscosity	650 cps

THEORETICAL COVERAGE RATES

133-200 sq ft. per gallon at (8-12 WTF)

PACKAGING & COLORS

Kit Sizes: 3 US gal (25lb net) & 15 US gal (125lb net)
Part A: 2-gal, 5-gal & Part B: 1-gal, 5-gal.
Available in clear and five standard colors.
Refer to GC color chart.
Color: PART A: Clear or Pigmented (5 standard colors)
PART B: Clear to Amber

MIX RATIO

GC Epoxy 100 mix ratio is 2A:1B, meaning two parts A (resin) to one part B (hardener) by volume.

SHELF LIFE AND STORAGE

12 months from the date of manufacture in original unopened factory sealed containers. Keep away from extreme cold, heat, or moisture. Keep out of direct sunlight and away from fire hazards

OVERVIEW OF INSTALLATION STEPS

- **Mandatory Mockup:** A 100-200 sq/ft mockup should be installed as a guide for installation and quality control panel days or weeks before the actual installation of the coating system. The mockup should be approved by an authorized representative of the Property Management for Slip Resistance, aesthetics, and functionality.
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- **Surface Preparation:** When used on concrete, tile, or existing coatings, if surface is clean and free of bond breakers such as oils, greases, etc., no grinding or surface profile is needed when Primer is used. Otherwise, traditional grinding, shotblasting or surface mechanical preparation is needed (minimum of CSP-2 or higher). It is highly recommended to create a sampling area before the start of the project. The test should be conducted on-site, using the method suggested by GC Flooring Systems Group, to ensure proper adhesion and color. A sampling area should also be conducted on existing coatings to determine if there are contaminants or if delamination will occur.
- Dry - No wet areas (<4% moisture content).
- Clean - Remove contaminants, dust, grease, delaminated coating, laitance, or any other substances that may reduce

- or prevent proper adhesion.
- Profiled - Mechanically profiled surface CSP2-4 (ICRI).
- Sanitized - Repair all cracks and chipped areas. Concrete preparation must be carried out by mechanical means such as shot

Cavities, cracks, and imperfections will be visible in the coating if the concrete is not properly repaired. Use Crack Repair to smooth out and fill any concrete voids, pinholes, or other imperfections on the surface. Once the material has hardened, correct any imperfections through diamond grinding.

Mixing: Typically, mixing three gallons of GC Epoxy 100 at a time is ideal for application. Mix using a drill and a mixing paddle. Note: if using a drill mixer, use a low speed (not exceeding 300 rpm) to avoid trapping air:

- Add 1 gallon of Part B to the pre-mixed 2 gallons of Part A and mix for an additional 3 minutes.
- GC Epoxy 100 is designed to be poured directly onto the floor. Allowing the mixed product to sit in the container will significantly reduce working time. Once poured on the surface, you can generally expect 30 – 40 minutes of working time.

Application: Pour out mixed GC Epoxy 100 in a large ribbon across the properly primed concrete surface or other type of substrate. Spread evenly with a flat squeegee, and back-roll with a 10 mm - 3/8" lint free roller, roll the coating evenly forward and backward to achieve mil consistency.
Consider the use of roller cage end caps for precision gauging millage and minimal waste.

FOR BEST RESULTS

- For a solid-color coating system, apply GC Epoxy 100 in two coats or in a single pass as a finishing layer. For estimation purposes, anticipate coverage from 133 SF (colored) up to 200 sq.ft. per gallon in both cases.
- Always apply at decreasing temperatures. Concrete is porous and traps air. During rising temperatures (typically in the morning), air expands and can cause gas release in the coating. It is safer to apply coatings in the late afternoon, especially for outdoor applications.
- The optimal ambient temperature should be between 18°C and 28°C (65°F and 82°F) during application.
- Always protect materials from excessive heat and cold, and precondition to room temperature as necessary.
- Regularly check wet film thickness with mil gauge and monitor consumption to ensure correct application rates are obtained.
- The proper application of this product is the sole responsibility of the end user. Job site visits by PPC representatives are only for the purpose of making recommendations, and do not assume any liability for supervision or quality control.

LIMITATIONS

- Acceptable moisture emissions for concrete are 3 lbs. per 1,000 SF over a 24-hour period (<4%) based on a calcium chloride test.
- RH test results should be below 85% according to ASTM F2170. If moisture is above this level, blistering and coating delamination may occur.
- Coating systems are prone to cracking if the concrete shifts or separates under the coating. Therefore, joint and crack treatment should be reviewed before coating application.
- Concrete must be minimum age of 21-28 days, depending on curing and drying conditions.
- The color may yellow over time when exposed to UV

LIMITED WARRANTY

GC warrants its products to be free of manufacturing defects and that they will meet GC current published physical properties. GC warrants that its products, when properly installed by a state licensed contractor according to GC guide specifications and product data sheets over a sound, properly prepared substrate, will not fail for a period of 12 months. Seller's sole responsibility shall be to replace that portion of the product which proves to be defective. There are no other warranties by GC of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. GC shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. GC shall not be responsible for use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. GC reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator

DISCLAIMER

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the users responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazard listed herein are the only ones which may exist.
Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and GC makes no claim that these tests or any other tests, accurately represent all environments. For further information please contact us at the following email address:
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DISPOSAL

Any surplus material, including both Part A and Part B components, should be combined and allowed to cure. Upon curing, the product can be disposed of without any restrictive conditions. Uncured materials should be securely stored in an appropriate sealed container and disposed of in strict adherence to the applicable provincial, state, municipal, and federal regulations.

CAUTION

ALWAYS KEEP OUT OF THE REACH OF CHILDREN
KEEP FROM FREEZING CONDITIONS
INTENDED FOR INDUSTRIAL USE ONLY