# POLYASPARTIC 85

## PRODUCT TECHNICAL DATA SHEET

GC POLYASPARTIC 85 Our cutting-edge coating system, referred to as GC Polyaspartic 85, stands as a versatile two-component solution, featuring a balanced 1:1 ratio. This product serves the dual purpose of being a colored basecoat and a crystal-clear topcoat. It excels in rapid turnaround and swift curing under standard conditions, typically becoming tack-free in approximately 120 minutes. This, in turn, enables the installation of a complete flooring system in just one day. GC Polyaspartic 85 distinguishes itself through superior mechanical and chemical properties, demanding minimal maintenance. Moreover, it offers full UV stability, culminating in a flawless aesthetic finish. For more in-depth information, kindly reach out to a representative from our dedicated team. 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

- Pharmaceutical plants and warehouses.
- Healthcare facilities and research laboratories.
- Drug manufacturing facilities.
- Prisons and correctional buildings.
- Production and assembly plants.
- Food and wineries processing factories.
- Kitchen and restrooms spaces.
- Educational institutions and corporate offices.
- Shopping and retail complexes.
- Storage facilities and display areas.
- Vehicle repair shops.
- Community spaces.
- Hallways and walkways.
- Residential and commercial projects such as quartz/flakes systems.
- Protective topcoat for cementitious overlays and microtoppings.

## ADVANTAGES

- Essentially odorless and self-priming.
- Compliant with VOC regulations.
- Outstanding color stability and high sheen.
- Exceptional chemical resistance.
- Low maintenance requirements.
- Outstanding elongation and abrasion resistance.
- Superior mechanical and chemical properties.
- Extended working time.
- Resistant to hot tire pick-up.
- Aliphatic in nature.
- Multi-coat application in a single day.
- Resistant to impermeability and mold.
- Compliant with VOC and EPA regulations in all states
- and Canadian provinces, including CIFA, USDA, and FDA
- Meets food safety standards odor

## THEORETICAL COVERAGE RATES

175 – 200 sq.ft. per gallon at (8 - 10 WTF)

## PACKAGING & COLORS

Kit Sizes: 2 US gal (16.6lb net) & 10 US gal (83lb net)
Part A: 1-gal, 5-gal & Part B: 1-gal, 5-gal.
Available in clear, universal color packs available.
Refer to PPC color chart.
Color: PART A: Clear
PART B: Clear to Amber

## MIX RATIO

GC Polyaspartic 85 mix ratio is 1A:1B, meaning one part 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.

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

| | |
|---|---|
| Solids content, by volume | 85% |
| Application Temperature | 50-90 °F (10-32 °C) |
| Min Substrate Temperature | 33 °F (1 °C) |
| Thinner Recommended | None |
| Pot Life @ 70°F | 10-15 minutes |
| Working time | 15 minutes |
| Tack Free | 2 hours |
| Light Foot Traffic | 5-7 hours |
| Heavy Traffic | 24 hours |
| Recoat window | 6-24 hours |
| USDA Food & Beverage CFIA | Meets the requirements |
| Compressive Strength | 14,000 psi – 96MPa /ASTM C 579 |
| Flexural Strength | 3,700 psi – 25.5MPa ASTM D 790 |
| Tensile Strength | 8,000 psi – 55.2MPa ASTM D 638 |
| Bond Strength (concrete) | 350psi – (2.4) ASTM D 4541 |
| Flammability | Self-extinguisher ASTM D 635 |
| Hardness (Shore D): Water Absorption | > 65 ASTM D 2240<br>< 0.1% ASTM D 570<br>< 0.1% MIL D 3134 |
| Impact Resistance | No chipping, cracking, or delaminating ASTM D 2240 |
| Flash Point | >200 °F - >93 °C |
| Abrasion Resistance | 58 mg loss ASTM D 4060<br>(CS-17 Wheel, 1,000 g load, 1,000 cycles) |

## 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
**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 blasting, grinding, sandblasting, or any other method approved by GC Flooring Systems Group.

Cavities, cracks, and imperfections will be visible in the coating if the concrete is not properly repaired. Use Crack Repair Fast 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 two gallons of GC Polyaspartic 85 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 1 gallon of Part A and mix for an additional 3 minutes keeping the mixing head fully immersed at all times. At least once when mixing, stop to scrape down the sides and bottom of the pail to ensure thorough blending of both components. If not mixing full units, each component must be premixed individually ensuring uniformity prior to use.

• GC Polyaspartic 85 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 15 minutes of working time.

**Application:** Pour out mixed GC Polyaspartic 85 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

- To mitigate potential issues due to air expansion in porous concrete, particularly in the morning when temperatures rise, it is advisable to apply the coating at lower temperatures. Hence, the safer practice is to apply coatings later in the day, particularly for exterior projects. The ambient temperature is ideally within the range of 65°F to 90°F (18°C - 32°C) during the application.
- If there is a need for additional protection against chemicals,
- abrasion, or slipperiness, do not hesitate to consult your representative from our company for tailored recommendations.
- 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 GC 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

## 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

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**infousa@gcflooringsystems.com**
**gcflooringusa.com**

## 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**