



POLYASPARTIC 80

PRODUCT DESCRIPTION

Simiron POLYASPARTIC 80 is a two-component, high performance, aliphatic polyaspartic floor coating designed for application up to 16 mils thick in a single pass over full broadcast systems. It provides superior protection through its excellent adhesion, durability, and resistance to stains, chemicals, and damaging UV rays. It can be used in both interior and exterior applications. This lower solids formula yields a lower mixed viscosity for easier application while still providing similar cure times as our fast cure version of **Polyaspartic HS** for experienced installers.

FEATURES & BENEFITS

- Easy-to-Clean, High Gloss Finish
- Resists Abrasion and Scratches
- Superior Chemical Resistance
- UV Stable
- User-Friendly Polyaspartic, 1:1 Mix Ratio
- Fast Return-to-Service
- 80% Solids
- LEED Compliant

RECOMMENDED USES

- Restaurants, Bars & Cafeterias
- Sports Arenas/ Stadiums
- Schools & Universities
- Corridors & Lobbies
- Kennels & Labs
- Locker Rooms / Restrooms
- Garages & Auto Service Areas
- Offices & General Rooms
- Exterior or Areas Exposed to UV
- Topcoat for Floors Broadcast to Refusal or Other Floor Systems

PRODUCT INFORMATION

| PRODUCT NAME | SIZE | COLOR/FINISH | ITEM NUMBER |
|---------------------|----------|---------------|-------------|
| Polyaspartic 80 Kit | 2-Gallon | Clear / Gloss | 40010768 |

TECHNICAL DATA

| PHYSICAL DATA | | THEORETICAL COVERAGE | |
|-------------------------|--------------------------------------|---|------------------------------------|
| Components | 2 (Base & Activator) | Wet Mils (microns) | 10 (250) - min. 16 (406.4) - max. |
| Mix Ratio (by volume) | 1:1 | Coverage sq. ft./gal. (m ² /L) | 160 (4.1) - min. 100 (2.05) - max. |
| Curing Mechanism | Chemical reaction between components | | |
| Solids by Volume/Weight | 80 - 83% | | |
| Mixed Viscosity | 100 cP | | |
| VOC (EPA Method 24) | < 50 g/L | | |

TECHNICAL DATA - CURE TIMES

| PRODUCT | MIXED VISCOSITY (cP) | 72F, 20% R.H. | | 72F, 80% R.H. | | FOOT TRAFFIC | HEAVY TRAFFIC |
|-------------------------|----------------------|---------------|----------------|---------------|----------------|--------------|---------------|
| | | WORKING TIME | TACK-FREE TIME | WORKING TIME | TACK-FREE TIME | | |
| Simiron Polyaspartic 80 | 100 | 22 min | 60 min | 12 min | 35 min | 4 - 6 hours | 48 hours |

Higher temperatures and humidity will shorten pot-life and working time. You can dip & roll to apply the material to almost double the work time. If applying a second coat, it must be applied within 24 hours after the first. If the re-coat window is missed, the coating system will need to be sanded and re-broadcast.

PHYSICAL PERFORMANCE PROPERTIES

| PHYSICAL PROPERTIES | TEST METHOD | RESULTS |
|--|-------------|----------------------------------|
| Coefficient of Friction (Wet DCOF) | ANSI A326.3 | .63 (14 mils over full flake) |
| Elongation | ASTM D2370 | 5 - 10% |
| Flammability | — | Self-extinguishing over concrete |
| Flexibility 1/8" Mandrel | ASTM D522 | Passes; No Cracking |
| Hardness, Shore D (24 hours, 5 days) | ASTM D2240 | 70, 86 |
| Taber Abrasion (CS-17 Wheel, 1000 g Load, 1000 Cycles) | ASTM D4060 | 30 mg loss |
| Tensile Strength | ASTM D2370 | 4,000 psi |
| Gloss @ 60° Angle | ASTM D523 | 92 - 95 |
| UV Resistance (Gloss after 1000 hours, in QUV) | ASTM G154 | 87 - 89 |

CHEMICAL RESISTANCE

| CHEMICAL | RESULTS | CHEMICAL | RESULTS | CHEMICAL | RESULTS |
|----------------------------------|---------|----------------------|---------|----------|---------|
| 10% Acetic Acid | G | Methyl Ethyl Ketone | E | Betadine | E |
| Vinegar | G | Xylene | E | Bleach | E |
| 10% Citric Acid | G | Ethylene Glycol | E | Urine | E |
| 10% Hydrochloric Acid | G | Isopropyl Alcohol | E | Coffee | E |
| 30% Hydrochloric Acid (muriatic) | G | Mineral Spirits | F | Cola | E |
| 10% Nitric Acid | NR | Brake Fluid | E | Ketchup | E |
| 50% Phosphoric Acid | F | Transmission Fluid | E | Mustard | G* |
| 10% Sulfuric Acid | F | Motor Oil | E | Red Wine | E |
| 37% Sulfuric Acid | F | 50:1 Gas/Oil Mixture | E | | |
| 70% Sulfuric Acid | F | E85 Gasoline | E | | |
| 20% Ammonium Nitrate | E | E95 Gasoline | E | | |
| 20% Sodium Chloride | E | Unleaded Gasoline | E | | |
| 50% Sodium Hydroxide | G | Skydrol | E | | |

**Stain is only defect.*

| KEY | |
|---------------|--------------------|
| E = Excellent | G = Good |
| F = Fair | NR = Not Recommend |

Chemical resistance was tested on fully cured material (after 5 days minimum).



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SURFACE PREPARATION

Concrete and coated concrete surfaces must be sound, clean, dry and free of contaminants such as dirt, dust, grease, oil, silicones and other contaminants that may negatively affect adhesion.

MOISTURE VAPOR BARRIER:

A suitable moisture barrier must be in place for concrete slabs on-grade. If a moisture barrier is not in place, seasonal variations in ground moisture can cause excessive moisture vapor transmission (MVT) regardless of results measured prior to coating application. MVT rate must not exceed three pounds per 1,000 square feet per 24 hours, as directed by ASTM F1869. The relative humidity (RH) of the slab must not exceed 75%, as directed by ASTM F2170. If there is a moisture situation in excess of the above rate, the use of Simiron MVB Moisture Vapor Barrier Primer may be required. Consult a Simiron Representative for details and application procedures.

SAFETY AND TECHNICAL

Refer to the SDS sheet before use. Safety precautions must be strictly followed during storage, handling, and use. To acquire additional information or technical and safety data, please visit: www.simiron.com

TEMPERATURE

| | | |
|----------|------------|------------|
| Air | 35° – 85°F | 2° – 29°C |
| Surface | 35° – 85°F | 2° – 29°C |
| Material | 60° – 85°F | 16° – 29°C |

Higher temperatures and humidity will shorten pot-life and working time. Polyaspartic HS applications below 60°F, must use the Fast Cure version.

MIXING

1 Part Base to 1 Part Activator by volume. Mix with low speed drill and Jiffy blade for three minutes until uniform. Do not mix more material than can be applied within the work times on page 2 (material will stiffen or tack-up).

APPLICATION EQUIPMENT

Squeegee—Flat or notched rubber squeegee (depending upon DFT required) with EPDM rubber blade, available from Simiron and other manufacturers of quality application tools such as Midwest Rake Company.

Rollers—Use a 3/8" shed-resistant woven roller cover with phenolic core for back-rolling, available from Simiron and other manufacturers of quality application tools such as Wooster Brush Company.

NEW/BARE CONCRETE:

Diamond grind or shotblast to a CSP 1-3 surface profile. Refer to SSPC-SP13/NACE 6 or ICRI Technical Guideline No. 310.2.

New concrete must be cured a minimum of 28 days and should meet moisture vapor transmission (MVT) and relative humidity (RH) thresholds as described in Surface Preparation section.

PREVIOUSLY COATED SURFACES:

This product is only designed to seal full broadcast systems. Thoroughly sand/grind with 60 grit sandpaper or diamonds and clean existing coating to provide proper surface profile and proceed with application of a full broadcast system per manufacturers instructions.

APPLICATION PROCEDURE

1. Apply at a spread rate of 100 – 160 sq. ft. per gal. to yield 10 – 16 wet film thickness using a squeegee and back-roll with a non-shedding 3/8" nap roller.
2. In hot or humid conditions, apply via 18" roller in a dip and roll method from a roller pan as increased heat and humidity will decrease the working time of the material.
3. This material will cure faster with exposure to moisture in the air.
4. To avoid visible differences in texture or mix-to-mix "tie-ins" do not exceed 5 – 10 minutes from one mix to another.
5. Use joints as natural breaks to divide sections of the floor.
6. If less texture is desired for a broadcasted floor, apply a second coating of 6 – 8 mils (no more than 200 sq. ft. per gal.) on top of the previous coat within 24 hours after initial coat is tack free and you can walk on it.

Applying thicker than recommended, allowing material to pool, or rolling into late may leave a white, hazy appearance.

CLEAN UP & DISPOSAL

Clean up mixing and application equipment immediately after use. Use toluene, acetone or xylene; do not use alcohol. Follow solvent manufacturer's safety instructions. Be sure to follow all local, state and federal regulations when disposing of materials.

MAINTENANCE

To maintain the appearance and extend the life of the newly sealed surface, it is imperative to have a routine maintenance program. Dirt and debris that is tracked over a finished floor will quickly scratch and dull the surface. Place walk-off mats at entrances. Sweep and mop/scrub floors regularly using soft bristles/pads and a mild cleaner. Some cleaning products and equipment or improper use of these can damage a surface. Remove spills quickly to minimize damage and/or stains. For systems that support parked vehicles or other heavy items on rubber wheels, place a small piece of nonporous material, such as sheet metal or plexiglass between the tires and floor to prevent tire marks. Reapplication may be necessary in heavy traffic areas.



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LIMITATIONS

- ⚠ Do not apply as a topcoat for a smooth floor coating system. Designed to be used over full broadcast systems (Decorative Chip, quartz, or silica sand) only.
- ⚠ Do not apply at thicknesses and temperatures not recommended.
- ⚠ Do not apply over loose or unsound concrete, asphalt or bitumen substrates, glazed tile or nonporous brick and tile, magnesite, copper, metal, polyesters, or elastomeric membranes.
- ⚠ Moving joints and shrinkage cracks may reflect through system. Joints that are designed to move may reflect through the finished flooring system if they are not honored.
- ⚠ Applying thicker than recommended, allowing material to pool, or rolling into late may leave a white, hazy appearance.
- ⚠ Tire marking may occur.

SHELF LIFE AND STORAGE

12 months from date of manufacture when stored indoors in the original unopened container at 60°F – 85°F (16°C – 29°C) in a dry location with humidity below 65%.

- ⚠ Do not allow materials to freeze.

TECHNICAL ASSISTANCE



Information is available by calling SIMIRON
Toll Free: 1.866.515.8775 / +1.248.686.3600

LIMITED WARRANTY

SIMIRON warrants this product to be free from defect in the material that affects its performance for a period of one year (from date of purchase). SIMIRON will replace at no charge the quantity of the Coating that SIMIRON determines has failed to perform, as the sole and exclusive remedy for any breach of this warranty and/or any other defect or failure of the coating. Proof of purchase is required. Cost of labor for application of any product specifically is excluded. Warranty is void if Simiron products are mixed with or used in conjunction with materials that are substituted for Simiron products. Warranty is nontransferable.



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SYSTEM GUIDE: 4/25/2024

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