



# POLYUREA BASECOAT

## PRODUCT DESCRIPTION

**SIMIRON POLYUREA** is a two-component, rapid-cure basecoat with excellent adhesion to concrete. The product is available in four different speeds by using XTRA Slow, Slow, Medium, and Fast Polyurea Basecoats. This material was designed to give installers a much faster resin option into which **Decorative Chip** must be broadcast to rejection and sealed with **Polyaspartic HS topcoat**.

## FEATURES & BENEFITS

- Rapid cure
- High solids
- Low odor
- Excellent adhesion
- Hides imperfections
- Customizable
- Easy to maintain
- Texture improves traction

## RECOMMENDED USES

- Apply only as basecoat to receive a full broadcast of **Decorative Chip** and seal with **Polyaspartic HS** topcoat in the areas such as:
  - Residential Garage
  - Lobby/Waiting
  - Office, Hallways & Stairwells
  - Cafeterias
  - Bar & Dining
  - Restrooms

## PRODUCT INFORMATION

| PRODUCT NAME                               | SIZE           | COLOR/FINISH      | ITEM NUMBER |
|--|----------------|-------------------|-------------|
| Polyurea XTRA Slow Basecoat Haze Gray      | 1.5-Gallon Kit | Haze Gray / Gloss | 40010966    |
| Polyurea XTRA Basecoat Sandstone           | 1.5-Gallon Kit | Sandstone / Gloss | 40011000    |
| Polyurea XTRA Slow Basecoat Neutral        | 1.5-Gallon Kit | Neutral / Gloss   | 40011017    |
| Polyurea Slow Basecoat Haze Gray           | 1.5-Gallon Kit | Haze Gray / Gloss | 40009014    |
| Polyurea Slow Basecoat Sandstone           | 1.5-Gallon Kit | Sandstone / Gloss | 40009052    |
| Polyurea Slow Basecoat Neutral             | 1.5-Gallon Kit | Neutral / Gloss   | 40010935    |
| Polyurea Medium Basecoat Haze Gray         | 1.5-Gallon Kit | Haze Gray / Gloss | 40009809    |
| Polyurea Medium Basecoat Sandstone         | 1.5-Gallon Kit | Sandstone / Gloss | 40009816    |
| Polyurea Medium Basecoat Neutral           | 1.5-Gallon Kit | Neutral / Gloss   | 40010942    |
| Polyurea Fast Basecoat Haze Gray           | 1.5-Gallon Kit | Haze Gray / Gloss | 40009083    |
| Polyurea Fast Basecoat Sandstone           | 1.5-Gallon Kit | Sandstone / Gloss | 40009090    |
| Polyurea Fast Basecoat Neutral             | 1.5-Gallon Kit | Neutral / Gloss   | 40010959    |
| Polyurea XTRA Slow Basecoat Haze Gray Base | 5-Gallon       | Haze Gray / Gloss | 40010973    |
| Polyurea XTRA Slow Basecoat Sandstone Base | 5-Gallon       | Sandstone / Gloss | 40011024    |
| Polyurea XTRA Slow Basecoat Neutral Base   | 5-Gallon       | Neutral / Gloss   | 40011031    |
| Polyurea Slow Basecoat Haze Gray Base      | 5-Gallon       | Haze Gray         | 40008994    |
| Polyurea Slow Basecoat Sandstone Base      | 5-Gallon       | Sandstone         | 40009069    |
| Polyurea Slow Basecoat Neutral Base        | 5-Gallon       | Neutral           | 40010904    |
| Polyurea Medium Basecoat Haze Gray Base    | 5-Gallon       | Haze Gray         | 40009823    |
| Polyurea Medium Basecoat Sandstone Base    | 5-Gallon       | Sandstone         | 40009830    |
| Polyurea Medium Basecoat Neutral Base      | 5-Gallon       | Neutral           | 40010911    |
| Polyurea Fast Basecoat Haze Gray Base      | 5-Gallon       | Haze Gray         | 40009106    |
| Polyurea Fast Basecoat Sandstone Base      | 5-Gallon       | Sandstone         | 40009113    |
| Polyurea Fast Basecoat Neutral Base        | 5-Gallon       | Neutral           | 40010928    |
| Polyurea Basecoat Activator                | 5-Gallon       | Neutral           | 40009007    |

## TECHNICAL DATA

| PHYSICAL DATA           |                                      |
|-------------------------|--------------------------------------|
| Components              | 2 (Base & Activator)                 |
| Color                   | Haze Gray and Sandstone              |
| Finish                  | Receives full chip broadcast         |
| Mix Ratio (by volume)   | 2 Base: 1 Activator                  |
| Curing Mechanism        | Chemical reaction between components |
| Solids by Volume/Weight | 94%                                  |
| Mixed Viscosity         | 600 cP                               |
| VOC (EPA Method 24)     | < 50 g/L                             |

| THEORETICAL COVERAGE                      |                  |                  |
|---|------------------|------------------|
| Wet Mills (microns)                       | 6 (152) - min.   | 8 (203) - max.   |
| Coverage sq. ft./gal. (m <sup>2</sup> /L) | 200 (4.9) - min. | 267 (6.6) - max. |

## TECHNICAL DATA - CURE TIMES

| PRODUCT                    | 72F, 20% R.H. |                       | 72F, 80% R.H. |                       | FOOT TRAFFIC  | HEAVY TRAFFIC |
|----------------------------|---------------|-----------------------|---------------|-----------------------|---------------|---------------|
|                            | WORKING TIME  | TACK-FREE/SCRAPE TIME | WORKING TIME  | TACK-FREE/SCRAPE TIME |               |               |
| Simiron Polyurea XTRA Slow | 60 min        | 3.5 hours             | 30 min        | 2 hours               | 4 - 4.5 hours | 60 hours      |
| Simiron Polyurea Slow      | 30 min        | 2 hours               | 20 min        | 60 min                | 3 - 3.5 hours | 48 hours      |
| Simiron Polyurea Medium    | 15 min        | 60 min                | 12 min        | 40 min                | 1.5 - 2 hours | 48 hours      |
| Simiron Polyurea Fast      | 10 min        | 30 min                | 8 min         | 20 min                | 1 - 1.5 hours | 48 hours      |

*Higher temperatures will shorten pot-life and working time.*

## PHYSICAL PERFORMANCE PROPERTIES

| PHYSICAL PROPERTIES                | TEST METHOD | RESULTS                           |
|------------------------------------|-------------|-----------------------------------|
| Adhesion                           | ASTM D4541  | > 400 psi (100% Concrete Failure) |
| Elongation                         | ASTM D638   | 65%                               |
| Flammability                       | —           | Self-extinguishing over concrete  |
| Flexibility, 1/8" Mandrel          | ASTM D522   | Passes, No cracks                 |
| Hardness, Shore A [3 days, 1 week] | ASTM D2240  | 76, 80                            |
| Hardness, Shore D [3 days, 1 week] | ASTM D2240  | 42, 55                            |
| Tensile Strength                   | ASTM D638   | 1,650 psi                         |

## 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.

### NEW/BARE CONCRETE:

Diamond grind or shotblast to a CSP 3 or greater surface profile, depending on total thickness of system. 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:

Clean surface to prevent any contaminants from being spread/redistributed to a greater area being prepared. Grind previous coatings to completely remove and prepare the surface described above.

## SAFETY AND TECHNICAL

Refer to the SDS sheet before use. Safety precautions must be strictly followed during storage, handling, and use. Personal Protective Equipment (PPE) should be worn at all times. PPE will include (but is not limited to): Safety glasses with side shields and high-quality nitrile gloves. To acquire additional information or technical and safety data, please visit: [www.simiron.com](http://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 will shorten pot-life and working time. Floor temperature must be at least 5 degrees over the current dew point. Systems applied below 60°F, need to utilize Polyaspartic HS Fast Cure as the topcoat.

## APPLICATION EQUIPMENT

Assemble all equipment. Equipment will include (but is not limited to):

- Drill and Jiffy® type mixing blade
- Spiked Shoes
- 3/8" shed-resistant woven roller covers with phenolic core.
- Edge rollers, chip brushes
- Painter's tape, duct tape, measuring and mixing containers

## APPLICATION PROCEDURE

**Polyurea** mix ratio is 2 Parts Base to 1 Part Activator by volume.

1. Pre-mix Base at low speed for 1 minute. Pour base into a 2–5 gallon mixing pail. Then, add Activator and mix for one minute until uniform. **Do not mix more material than can be applied and broadcasted within the work times defined in the cure time chart on page 2. (material will stiffen or tack-up).**
2. Wearing spiked shoes, quickly apply material at 6-8 mils using a roller. Dip and roll. **Do not apply any thicker than 200 sq. ft. per gallon or allow material to fill joints or deep holes/cracks - These spots will swell/raise due to foam formation.**
3. Immediately broadcast **Decorative Chip** into the wet material before the surface skins over. Toss the flake up into the air to evenly scatter it. Continue to add flakes to the floor until the resin is completely covered. **Smaller flakes will cover the 6-8 mil basecoat more efficiently. Do not dump or allow the chip flakes to pile on the floor.**
4. After coating under the chip sets up/cures enough to traffic (about 1.5 hours), scrape and remove loose/extra flake from the surface.
5. Seal the broadcast with **Polyaspartic HS**. See specific Product Data Sheet for information and instructions.

## CLEAN UP & DISPOSAL

Clean up mixing and application equipment immediately after use. Use 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.

## LIMITATIONS

- ⚠ Only apply as a primer/basecoat that is broadcast to rejection with flake.
- ⚠ Product will yellow over time, so spots not covered by flake will discolor.
- ⚠ Do not apply at a temperature or thickness not recommended.
- ⚠ Do not delay in applying the material.
- ⚠ 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.
- ⚠ Tire marking may occur.



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## SHELF LIFE AND STORAGE

24 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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PRODUCT DATA SHEET: 06/13/2024

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