



POLYUREA

PRODUCT DESCRIPTION

SIMIRON POLYUREA is a two-component, rapid-cure basecoat with excellent adhesion to concrete. The product is available in three different speeds by using Fast, Medium, and Slow 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 Slow Basecoat Gray	1.5-Gallon Kit	Gray / Gloss	40009014
Polyurea Slow Basecoat Tan	1.5-Gallon Kit	Tan / Gloss	40009052
Polyurea Medium Basecoat Gray	1.5-Gallon Kit	Gray / Gloss	40009809
Polyurea Medium Basecoat Tan	1.5-Gallon Kit	Tan / Gloss	40009816
Polyurea Fast Basecoat Gray	1.5-Gallon Kit	Gray / Gloss	40009083
Polyurea Fast Basecoat Tan	1.5-Gallon Kit	Tan / Gloss	40009090
Polyurea Slow Basecoat Gray Base	5-Gallon	Gray	40008994
Polyurea Slow Basecoat Tan Base	5-Gallon	Tan	40009069
Polyurea Medium Basecoat Gray Base	5-Gallon	Gray	40009823
Polyurea Medium Basecoat Tan Base	5-Gallon	Tan	40009830
Polyurea Fast Basecoat Gray Base	5-Gallon	Gray	40009106
Polyurea Fast Basecoat Tan Base	5-Gallon	Tan	40009113
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 Mils (microns)	6 (152) – min.	8 (203) – max.
Coverage sq. ft./gal. (m ² /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 Slow	50 min	3 hours	25 min	90 min	3 - 3.5 hours	48 hours
Simiron Polyurea Medium	25 min	80 min	17 min	48 min	1.5 - 2 hours	48 hours
Simiron Polyurea Fast	15 min	40 min	11 min	29 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.

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.



POLYUREA

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 the are not honored.
- ⚠ Tire marking may occur.

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: 8/2023