

# **Application Instructions**

# POLYASPARTIC - THIN-MIL (3-COAT SYSTEM)

**CLEAR OR PIGMENTED SOLID COLOR** 

DS-PSC-51018

These instructions are not intended to show product recommendations for specific service. They are issued as an aid in determining correct surface preparation, mixing instructions and application procedure. These instructions should be followed closely to obtain the maximum service from the product.

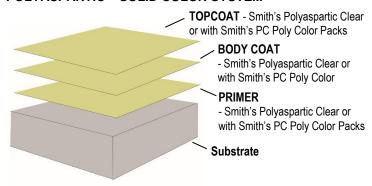
### **DESCRIPTION:**

Smith's Polyaspartic Thin-mil, Solid Color System is a fastreturn-to-service, pigmented 3 coat seamless floor coating system ideal for commercial, retail, institutional and residential flooring applications, both interior and exterior.

### **HIGHLIGHTS:**

- Overnight return-to-service
- UV Stable Interior or Exterior use
- Resistant to Hot Tire Pick-up
- · Good Stain and Chemical Resistance
- Pigmented 16 Standard Colors Available
- Economical
- Low VOC's Available in all regions

## POLYASPARTIC - SOLID COLOR SYSTEM



**AREA PREPARATION:** Be sure to mask or cover all areas that are not intended to be coated; including, but not limited to; door frames, doors, walls and windows.

## **NECESSARY TOOLS and EQUIPMENT:**

- Plastic Sheeting or Ram Board to cover floor for mix station
- Jiffy mixing paddle
- Low speed ½" drill (Variable Speed 650 rpm or less)
- 5 gallon Plastic Mixing Buckets
- 18" wide, Premium, Non-Shed 3/8" Nap Paint Roller Covers
- 18" wide, non-metallic Paint Roller Frames
- Multiple Extension Poles
- Spiked shoes or Soccer Cleats
- Flat Window Squeegee or Magic Trowel (optional)
- Cleaning Solvent (Acetone, MEK, Xylene)

**NOTE:** The mix station and all application equipment should be ready for immediate use prior to mixing any product. Higher temperatures and humidity will shorten pot life.

**SURFACE PREPARATION:** The surface preparation phase of a polyaspartic floor system should be viewed as the <u>most important</u>. Proper floor preparation results in the product's longevity, minimizes potential failures and creates the best environment for an aesthetically pleasing installation. In short, the more detail and time allotted to this phase of the project will dramatically affect the appearance as well as the durability of the finished floor.

- Allow new concrete to cure for at least 28 days. Application
  of Smith's Polyaspartic to a damp surface or incompletely
  cured concrete may cause a hazy appearance or loss of
  adhesion. Moisture Vapor Testing is always recommended
  when coating directly over concrete.
   \*See "Moisture /Alkalinity" section on page 3 for more details
- 2) Remove paint, adhesives and loose particulates from the intended application surface
- 3) Concrete Surface Profile CSP 2 to CSP 4 must be achieved via mechanical grinding with a 30 (or less) metal bonded diamonds or shotblasting. If water is introduced to the intended application area, allow substrate to fully dry

**MIXING INSTRUCTIONS:** Mix only that amount of product that can be used in 30 minutes (Smith's Polyaspartic 1000 Series) or 45 minutes (Smith's Polyaspartic 2000 Series) at 72°F and 40% RH. Higher temperatures and/or high humidity reduce pot life.

Mixing Ratio: Equal parts by volume (i.e. 1 Part A to 1 Part B) If a solid color system is desired, add 1 unit of Smith's PC Poly Color Packs to 2 gallons of mixed Polyaspartic (11-13 ounces per mixed gallon)

Measure the amounts carefully and mix counter-clockwise for one full minute using a low speed drill with a paint mixing paddle ensuring both the bottom and sides of the mixing container have been thoroughly blended.

**DO NOT MIX AT HIGH SPEEDS** to avoid air and moisture entrapment.

**NOTE:** Mechanical agitation is recommended

**APPLICATION METHOD:** Smith's Polyaspartic 1000 and 2000 Series may be applied via brush, roller and/or squeegee.

**ROLLER APPLICATION:** Use a 3/8 inch non-shed chemical resistant roller cover.

**BRUSH APPLICATION:** Utilize traditional bristle brush application for corners and edges.





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**INSTALLATION:** Cure times based on 72°F – 40% RH

\*Higher temperatures and humidity will shorten pot life. Low temperatures will increase cure times

- PRIMER Apply a thin coat of Smith's Polyaspartic Gloss 1000 or 2000 (for solid color, with Smith's PC Poly Color Pack) at a rate of 5-7 mils ≈ 175-240 sq.ft. per gallon. Allow to cure:
  - 2000 Slow Cure = 3 4 hours
  - 1000 Fast Cure = 1 ½ 2 hours
- BODY COAT Apply a body coat of Smith's Polyaspartic Gloss 1000 or 2000 (for solid color, with Smith's PC Poly Color Pack) at 8-12 mils ≈ 100-150 sq.ft. per gallon pouring out in ribbons then spread with a squeegee followed immediately by back rolling. Allow to cure:
  - 2000 Slow Cure = 3 4 hours
  - 1000 Fast Cure = 1 ½ 2 hours
- TOPCOAT Apply a body coat of Smith's Polyaspartic Gloss 1000 or 2000 (for solid color, with Smith's PC Poly Color Pack):
  - Orange Peel-like texture, Gloss Finish achieved with a thin, dip-and-roll topcoat application
    - 3 to 7 mils ≈ 175-600 150-300 sq.ft. per gallon.
  - Smooth, Gloss Finish Requires a thicker topcoat application of greater than 8 mils
    - 8-12 mils ≈ 100-150 sq.ft. per gallon.
  - Low Sheen with Mild Texture Finish For areas with moderate to heavy traffic demands, Smith's Industrial Filler may be added to Smith's Polyaspartic at a rate of 1 pint per mixed gallon of Polyaspartic and MUST be applied via dip-and-roll method in a V-Roll pattern with straight finish roll
    - 500-620 sq.ft. per mixed gallon
  - Angular traction additive, such as <u>Smith's Resin Sand</u>, may be added to this layer if desired.

## Allow to cure:

### Light/Foot Traffic:

- 2000 Slow Cure = 4 5 hours
- 1000 Fast Cure = 2 3 hours

### Vehicle Traffic:

- 2000 Slow Cure = 24 36 hours
- 1000 Fast Cure = 12 24 hours

\* Mil and sq. ft. coverage are theoretical. Substrate porosity will affect coverage rates.

# **APPLICATION TEMPERATURES:**

	Material	Surface	Ambient	Humidity
Best	60°-80°F	65°-80°F	65°-85°F	10-60%
Minimum	50°F	50°F	50°F	0%
Maximum	90°F	85°F	95°F	70%

- Do not apply when substrate has direct sun
- High humidity will decrease pot life.
- USE Smith's Polyaspartic 4000 Series for Low Temperature installations

**RECOATING:** Smith's Polyaspartic should be recoated as soon a previous coat is dry to the touch. If recoating after 24 hours has elapsed, degloss existing sealer film with a black janitor pad, 80-100 grit sandpaper or 80 – 120 grit sanding screen.

**MAINTENANCE:** The coating system must be allowed to cure for no less than one week before using any mechanical cleaning equipment on the surface and no less than 24 hours before neutral cleaner or water exposure. This includes autoscrubbers, swing buffers, sweepers, etc. Only dust and wet mopping may occur the first week.

Dust mopping, removal of debris and regular cleaning is crucial to maintaining the aesthetics of the coating and obtaining the maximum life span of the floor coating system. Cleaning cannot occur too often and inefficient cleaning will cause the floor to wear out prematurely and possibly stain or discolor depending on what comes in contact with the floor. Spills should be removed quickly. Avoid the use of Polypropylene or abrasive bristle (Tynex®) brushes as these brushes will cause the development of scratch patterns and lessen the sheen.

To maximum your investment with proper floor care and maintenance, remove all particles that may scratch and/or dull the floor coating using the least aggressive method necessary to clean the floor.

It is good practice to develop a floor maintenance schedule to be performed at the end of each shift and a set day per week or month for heavy cleaning:

- Daily = Sweep and dust mop or water only mopping/autoscrubbing; spot clean spills and oils
- Weekly or Monthly = Scrubbed once per week or month depending on the amount and type of soils present.

Health Department or DEA regulations may necessitate more frequent and stringent cleaning practices as will areas more prone to oils, inks, chemicals, etc. on the floor surface.

Tynex<sup>®</sup> is a registered trademark of E. I. du Pont de Nemours and Company.

**DETERGENT:** Always use the least aggressive detergent necessary to remove the residue. <u>Smith's Neutral Clean</u>, or similar, may be used for general purpose cleaning. Use <u>Smith's Oil Clean</u>, or similar degreaser, for more degreasing and heavy duty weekly or monthly cleaning.





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### **CAUTION:**

- Do not drag or drop heavy objects across any floor, including coatings as scratching, gouging or chipping may occur to the concrete or the coating itself. This includes the tip of the forks on a forklift, nails protruding from a pallets, etc.
- Avoid spinning tires on the surface of a coated floor. The heat created from the friction of a spinning tire will quickly soften the coating causing permanent damage to the finish.
- Should a gouge, chip or scratch occur, touch-up the damaged areas immediately to avoid chemical or water intrusion to the concrete which could create additional damage. A thin layer of clear nail polish to the damaged area will provide some minimal protection until the area can be properly repaired.
- Rubber tires are prone to plasticizer migration, especially aviation tires and high performance car tires. Plasticizer will stain coating and commercial flooring leaving an amber, yellow-like stain that can be permanent. This can be more noticeable where aircraft or vehicles are stationary for longer period of time, more so in non-climate controlled environments such as aircraft hangar with lighter colored floors. To avoid plasticizer staining, use a piece of Plexiglas® or LEXAN® panels, cut a few inches in diameter larger than the tires that will rest on the panels, between the floor and the contact point of the tire when storing rubber tired vehicles on any floor, including floor coating systems. Some tire stains can be removed is cleaned before a set-in stain occurs using a d-Limonene based degreaser and some mild agitation using an orbital, low speed floor machine.
- Material is combustible. Extinguish all flames, pilot lights and electric motors until all vapors are gone and the coating is hard. Keep away from sparks, heat and open flame. Use with adequate ventilation when mixing, applying and curing. Product emits harmful solvent and isocyanate vapors which can cause respiratory irritation. Individuals with chronic lung or breathing problems or negative reaction to isocyanates, should not use this product. The use of a self-contained respiratory equipment (TC 19C NIOSH/MESA) is recommended. Prevent all contact with skin. Use impermeable gloves and chemical resistant eye protection.

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**SLIP RESISTANCE:** Smith Paint Products recommends the use of angular slip-resistant aggregate in all coatings that may be exposed to wet, oily or greasy conditions as well as any condition where increased traction may be necessary. It is the contractor and end users' responsibility to determine the appropriate traction needs and footwear necessary for the conditions as well as setting performance parameters prior to beginning the application, testing to determine parameters have been met upon completion to achieve the end users documented safety standards.

Mock-ups are highly recommended as part of the evaluation process to determine the appropriate amount of slip-coefficient necessary for the environment.

MOISTURE/ALKALINITY: The absence of an effective moisture vapor barrier may create an environment for moisture vapor transmission as well as high levels of alkalinity in concrete slabs. Blistering, delamination, flaking, etc. may occur in these environments when a non-breathable coating is applied over the surface of the concrete. Moisture testing is extremely important has part of the investigation process prior to quoting a project and should occur following the most current industry accepting testing methods, such as, a Calcium Chloride test (ASTM F-1869) and/or Relative Humidity probe (ASTM 2170). It is the contractor's responsibility to determine the moisture vapor transmission and pH of a floor. It is the contractor's responsibility to determine whether or not a substrate is sound, solid and suitable.

Never use silicate based products as a means of moisture remediation as these products may crystallize in the pores of the concrete surface and impede on the adhesion of the coating system and are highly discouraged for use under any circumstance. This includes products containing Potassium Silicate, such as Smith's Base Boost, and Sodium Silicate based products.

Smith Paint Products is not responsible for failures due to the presence of moisture vapor emissions nor high levels of alkalinity.

LIMITED LIABILITY: Liability is limited to replacement of defectively manufactured product with same type and cost of the original purchased product upon presentation of a valid, fully paid invoice at the time of a claim. No warranty shall be granted for outstanding invoices or for accounts with unpaid balances until paid in full. No damages, whether consequential, liquidated or other, shall be provided under this Limitation of Liability and Limited Warranty. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SMITH PAINT PRODUCTS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MECHANTABILITY AND FITNESS FOR A PARTICULAR SHOULD YOU NOT AGREE WITH ANY OF THE ABOVE TERMS, DO NOT PURCHASE THE PRODUCT(S). Should a product defect be suspected at the time of application, cease use of the product immediately and notify Smith Paint Products for investigation otherwise you will be responsible for the cost to repair or replace any work performed with product(s) suspected of defect. Record batch codes and save all products you purchased in order for any warranty to occur allow with the invoice that Defects determined after installation must be matches said quantity. reported to Smith Paint Products within 10 business days of discovery.

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