

**DESCRIPTION:** RhinoSeal™ PA is a two-component, rapid curing, environmentally-friendly polyaspartic coating system designed as a decorative yet durable coating for floors and other applications. Formulated with aliphatic chemistry, RhinoSeal™ PA is color stable allowing it take UV exposure without color shifts seen with other coating systems such as epoxies. RhinoSeal™ PA is a 1:1 mix ratio system with sufficient pot life to be rolled, brushed, or sprayed with Rhino Linings® application equipment. It has a robust application window with ability to apply at low temperatures and high humidity.

**TYPICAL USES:** Excellent durability and aesthetics for floor, equipment and other coatings including: garage floors, pool decks, laboratories, restaurant floors, airplane hangars, bridge decks and entry/lobby areas. RhinoSeal™ PA creates a durable, seamless lining which conforms to any shape and size.

**FEATURES & BENEFITS:**

- Fast cure allowing rapid turnaround time; under normal conditions, light foot traffic within 2 – 4 hours, return to service in 24 hours
- Lower odor than most polyaspartics
- Cures at temperatures just above freezing
- Can be applied below -20°F (-28.9°C). Will cure with special handling
- Available in low VOC and also in zero VOC formulation for restricted areas
- Meets USDA/CFSAN, U.S. Food Code, physical facilities criteria as outlined in chapters 6-1 and 6-2 surface characteristics USDA acceptable. Also complies with CFR 21 - CFR 175.300 and 177.1680 regulations for incidental food contact
- Micro media traction agents can be introduced into the liquid system or dispersed into the top coat
- Excellent UV resistance, non yellowing and high gloss characteristics
- Excellent color stability
- Achieve a variety of colors, patterns, and logos, using decorative flakes, particles, or signs
- Excellent abrasion and impact resistance
- Excellent chemical resistance, resistant to Skydrol (aviation fluid)
- Resistant to hot tire peel
- Excellent coefficient of friction properties
- High build capability in lifts of 10 – 12 mils maximum
- Can be matted with a matting agent
- Bonds to virtually all substrates of any dimension, including metals, concrete, and fiberglass
- Tolerant to 300°F (149°C) for random, incidental heat contact

CHEMICAL PROPERTIES*:	Test	Isocyanate	Resin
Specific Gravity (grams/cc)	ASTM D-792	1.0	1.06 – 1.08
Volatile Organic Compounds (system)		150 g/l	
Mix Ratio, parts per volume		1	1
Pot Life, minutes		20 – 30	
Recoat, max		48 hrs	
Dry to Touch		1 – 2 hrs	
Walk on Time (light foot traffic)		2 – 4 hrs	
Return to Service Time (vehicle traffic)		24 hrs	
Full Cure		4 – 7 days	
Coverage Rate per Gallon		200 – 250 sqft depending on substrate porosity	
Recommended Application Temperature		40° – 120°F (4° – 49°C)	
Odor		mild	mild
Color		clear	white
Shelf Life - Unopened Containers		12 months	12 months

\*Properties were tested at 77°F (25°C).

**TYPICAL PHYSICAL PROPERTIES:**

Test Result

**RHINOSEAL™ PA (continued):**

Hardness: -pencil 2H		
-pendulum, in/lb	ASTM D-256	160
Tensile Strength (psi)**	ASTM D-412	6500
Elongation (%)**	ASTM D-412	50
Taber Abrasion Resistance (mg of loss/1000 cycles) CS17 Wheel; 1000 grams weight	ASTM D-4060	30
Coefficient of Friction (static)		
• Polyaspartic with Chips: -Dry	ASTM C-1028	0.987μ
-Wet	ASTM C-1028	0.735μ
• Polyaspartic with Quartz: -Dry	ASTM C-1028	1.195μ
-Wet	ASTM C-1028	0.988μ
Water Vapor Transmission:		
-Rate of Transmission (grains/hr/sqft)	ASTM E-96	0.58
-Permanence (perm, in - lb)		1.63
Water Absorption (%)	ASTM D-570	≤0.5

\*\*Properties were checked on dry films at 5 – 6 mils thick, air dried for 7 days.

**DRY FILM THICKNESS:** RhinoSeal™ PA is typically applied in two coats, the pigmented base coat and a clear top coat. Decorative flakes or quartz particles are broadcast into the base coat. Total coating thickness is typically 15 – 20 mils with decorative flakes. See Rhino™ representative for your specific application.

**MOISTURE VAPOR TESTING:** All concrete floors not poured over a proper moisture barrier, are subject to possible moisture vapor transmission or hydrostatic pressure problems which can cause a coating system to blister or fail. A moisture emission measurement system per ASTM F-1869 Calcium Chloride or ASTM F-2170 slab humidity is necessary to assess the moisture drive of a concrete slab prior to installation of any toppings or coatings. The transmission rate must not exceed three pounds per 1,000 square feet per 24 hours in the chloride test or the relative humidity of the slab must not exceed 80% with the humidity test. If there is a moisture emission situation in excess of either rate, consult Rhino Linings technical department for assistance. The sealing system application process will depend on the flooring system being installed, reference appropriate specification for details.

**SURFACE PREPARATION:** The surface must be clean and sound, free from oil, dirt, waxes and any other contaminants that may interfere with bonding. Always check the surface for any bond inhibitors prior to application. Any surface or structural repairs must be addressed prior to application and should be repaired in accordance with ICRI standards. Always properly prepare surface as an open, porous surface is necessary for primer bonding. You can determine the openness of the pores using the water drop test. The surface must be deemed structurally and mechanically sound, clean, and dry. Proper surface preparation is required for decorative-concrete, thin-film “Class-A-type” flooring systems or sealer/finish coatings. This is best achieved with shot blasting or mechanical grinding machines using diamond heads achieving a final 80 to 120-grit profile. Recommended surface profile is CSP-2 to CSP-5, Reference ICRI Technical Guideline No. 03732.

**MIXING INSTRUCTIONS:** For the Base coat Mix part A and part B in equal parts (1:1) using a clean, dry working vessel recommend ½ gallon of A and ½ gallon of part B with 1 pint of desired pigment. Stir gently; avoid over-mixing or creating a vortex that would introduce moisture. Do not mix below the dew point, which will shorten the pot life. No induction time similar to epoxy mixtures is required prior to use. If media agents are to be incorporated, they are to be added after thoroughly mixing A and B. You can dilute the mixture up to 20% with Xylene if desired. Warning: Large masses of mixed and/or heated material will have a shorter pot-life. Do not apply in direct sunlight when temperatures and humidity are high.

**APPLICATION INSTRUCTIONS:** Warning: RhinoSeal™ PA is combustible and proper ventilation should be used during its application extinguish all pilot lights and any source of ignition. Roller application is the recommended process. Ideally the roller should be an 18” industrial grade phenolic resin core with a synthetic nap or lambs-wool cover 1/8” – 3/8” nap. Small chip brushes or 6 – 8” wall edgers may be used along the perimeter and in more difficult to reach areas. RhinoSeal™ PA will typically dry to the touch 1 – 2 hours after application, dependent on the substrate and atmospheric ambient temperature and humidity. Re-coating may occur once the base coat is dry or when deemed appropriate by system specification. Cure time is effected by environmental conditions. Do not force dry. High humidity and/or low temperatures can cause haziness and blushing in the coating. Foot traffic is generally acceptable after 2 – 4 hours with 24 hours minimum required for vehicular traffic. Full cure will occur in 4 – 7 days. For Professional Installation, refer to detailed Application Guidelines. For tool cleanup use Xylene, MEK or Acetone. Do Not use Alcohols.

**CHEMICAL RESISTANCE:** Excellent resistance to many chemicals.

For a 7 day immersion in:

- Gasoline	No effect
- Brake Fluid	No effect
- Skydrol	No effect
- Coolant or Anti-freeze	No effect
- Ammonium hydroxide	No effect

## RHINOSEAL™ PA (continued):

**NOT RECOMMENDED FOR:** Do not use to bridge cracking in substrate. Do not use over acrylic sealers or acrylic primers unless they are de-glossed first. FastFloor requires moisture/vapor barrier for surfaces with a MVT greater than 3lbs per 1000 square feet. It is not resistant to strong acids.

**COLOR OPTIONS:** Standard colors available: gray, tan and terra cotta. Custom colors are also available by special order. Decorative Chips available in standard and custom colors; Decorative Quartz available in six standard colors.

**STORAGE:** Store in sealed containers at 60 – 90° F in a dry area. Do not store in direct sunlight.

**SLIP/FALL PRECAUTIONS:** Rhino Linings recommends using slip resistant granules in all outdoor applications where the epoxies and urethanes will be used as a topcoat sealer and on indoor applications that may be exposed to water, oil or other spills that may cause a slippery environment. Aluminum oxide granules #80 grit or courser may be broadcast into the prime coat to achieve the amount of slip resistance desired. It is the end user's responsibility to determine the suitability of a coating for their particular application. Rhino Linings or its sales agents will not be responsible for injury incurred in a slip/fall accident.

**SAFETY PRECAUTIONS:** Health Considerations: Consult the Rhino Linings® Safety Data Sheets (SDS) Chemical systems require the use of proper safety equipment and procedures. Please follow the Rhino Linings® product SDS and Safety Manual for detailed information and handling guidelines.

**For Your Protection:** The information and recommendations in this publication are, to the best of our knowledge, reliable. Suggestions made concerning the products and their uses, applications, storage and handling are only the opinion of Rhino Linings Corporation. Users should conduct their own tests to determine the suitability of these products for their own particular purposes and of the storage and handling methods herein suggested. The toxicity and risk characteristics of products made by Rhino Linings Corporation will necessarily differ from the toxicity and risk characteristics developed when such products are used with other materials during a manufacturing process. The resulting risk characteristics should be determined and made known to ultimate end-users and processors. Because of numerous factors affecting results, Rhino Linings Corporation makes no warranty of any kind, express or implied, other than that the material conforms to its applicable current Standard Specifications. Rhino Linings Corporation hereby disclaims any and all other warranties, including but not limited to those of merchantability or fitness for a particular purpose. No statements made herein may be construed as a representation or warranty. The liability of Rhino Linings Corporation for any claims arising from or sounding in breach of warranty, negligence, strict liability, or otherwise shall be limited to the purchase price of the material.

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