

RhinoPak 90A Black, Part # 10351-CS

**DESCRIPTION:** RhinoPak™ 90A is a two-component, 100% solids (no solvents), zero VOCs, rapid curing, elastomeric polyurea hybrid lining. RhinoPak™ 90A has a hardness rating similar to the TuffGrip™ and TUFFSTUFF® products. The protective lining system is packaged in a dual 750 ml cartridge for use with the lightweight, portable RhinoPro™ Cartridge Gun. The disposable, quick-load cartridges are great for small jobs, hard to reach places and repairs.

**TYPICAL USES:**

- Excellent protective lining for abrasion, impact and corrosion resistance
- Spray-on application creates a monolithic, seamless lining which conforms to any shape and size
- Casting of small parts, void filling
- Elastomeric properties allow for application to surfaces subject to: vibration, expansion, contraction, movement, flexing, abrasion and impact.
- Withstands light vehicular and foot traffic
- Casting material for material handling equipment such as chutes, hoppers, rollers, etc.
- Aggressive non-slip performance can be achieved with aggregate integrated into lining.

**FEATURES & BENEFITS:**

- Excellent abrasion resistance
- Excellent impact resistance
- Very good slip resistance
- Excellent corrosion resistance
- Reduces noise from vibration and impact
- Bonds to virtually all substrates of any dimension, including all metals, concrete, wood and fiberglass, with proper surface preparation
- Stable from -40°F (-40°C) to 175°F (80°C)

<b>CHEMICAL PROPERTIES:</b>	<b>Standard Test</b>	<b>Isocyanate (A)</b>	<b>Resin (B)</b>
Specific Gravity (grams/cc)	ASTM D-792	1.06 – 1.08 (combined)	
Solids by Volume/Weight		100%	100%
Volatile Organic Compounds		0 lbs/gal	0 lbs/gal
Mix Ratio, Parts per Volume		1	1
Gel Time, Seconds at 80°F (27°C)		15 ± 5	
Tack-free, Minutes		1 – 5 (based on ambient temperature)	
Cure, Hours at 70°F (21°C)		24	
Theoretical Coverage		8 sqft/1500ml cartridge at 1/16" (62 mil) thick	
Shelf Life - Unopened Containers		12 months	12 months

<b>TYPICAL PHYSICAL PROPERTIES:</b>	<b>Test</b>	<b>Result</b>
Hardness (Shore A)	ASTM D-2240	90A±5
Tensile Strength (psi)*	ASTM D-412	1300 – 1500
Elongation (%)*	ASTM D-412	200 – 250
Tear Resistance (pli) Die C*	ASTM D-624	200 – 250
Water Absorption (%)	ASTM D-570	≤1.6

\*Properties were checked of polyurethane lining, 1/8" (125 mils), (3.18 mm) thick stock.

**PROCESSING CHARACTERISTICS:**

<b>Equipment Used</b>	<b>Process Temperature</b>
Dual Cartridge with static mix tube, air atomization and dry air	70° – 90°F (21° – 32°C) on cartridge

**DRY FILM THICKNESS:** Varies based on application, typically a minimum of 1/8" (125 mil; 3.2mm) up to unlimited thickness

**SURFACE PREPARATION:** Before applying RhinoPak™ 90A, the surface should be prepared properly following recommended Rhino Linings® procedures. The substrate should be clean, dry and free of oil, dirt or other contaminants. It is ideal to roughen the surface to create a profile to bond to. Depending on the application, the use of the appropriate Rhino Linings® primer may be required for best results.

## **RHINOPAK™ 90A** *(continued)*

**APPLICATION INSTRUCTIONS:** Please refer to the RhinoPro™ Cartridge Gun (PN# 10423) manual for complete instructions on using these cartridges. The RhinoPak™ must be shaken in the RhinoPro™ Cartridge Shaker for 4 to 5 minutes prior to spraying. This procedure insures proper distribution of pigment and other components. RhinoPak™ 90A cartridge's chemical temperature must be between 70°F and 90°F (21° – 32°C) when sprayed.

### **NOT RECOMMENDED FOR:**

- Sustained temperatures below -40° F (-40° C) or above 175° F (79.4° C)

**SUBSTRATES:** The RhinoPak™ 90A can be applied to metals, wood, concrete, fiberglass, geotextiles and other Rhino Linings® products as a patch material. If using as a repair or patch material, it is best to match the hardness rating of 90A with the lining being repaired. Please consult with Rhino Linings® for further technical support.

**COLOR OPTIONS:** Standard color black.

**STORAGE:** Cartridges should be stored at 60 – 90°F (16° – 32°C) in a dry condition in their original packaging. If RhinoPak™ cartridge has been stored longer than 1 week, shake cartridge to insure proper distribution of chemicals and pigment.

### **SAFETY PRECAUTIONS: Health Considerations: Consult the Rhino Linings® Safety Data Sheets (SDS)**

This chemical system requires 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.

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