

Part A – Rhino Hybrid™ 21-60 Iso, Part # 60129
Part B – Rhino Hybrid™ 21-60 Resin, Part # 60096

DESCRIPTION:

Rhino Hybrid™ 21-60 is a two-component, rapid curing, elastomeric hybrid polyurea lining system and is designed to be sprayed with high pressure plural component spray equipment such as the RhinoPro™ HP-21 Max. Thickness of the lining will vary depending on the application, typically from a minimum of 30 mils up to unlimited thickness.

TYPICAL USES:

- Excellent industrial lining for tough application spray conditions such as:
 - Outdoor application sites where water, humidity or low temperature conditions exist and are tough to eliminate
 - Floor and wall protection in industries such as food processing, food storage, veterinary, production areas and laboratories
 - Secondary containment as a monolithic, impermeable lining for industrial plant, agriculture, and petrochemical applications
- Spray-on application creates a monolithic, seamless lining which conforms to any shape and size
- Elastomeric properties allow for application to surfaces subject to vibration, expansion, contraction, movement, flexing, abrasion and impact
- Can withstand vehicle forklift traffic and heavy loads with proper thickness build
- Reduces noise from vibration and impact

FEATURES & BENEFITS:

- Robust application window with ability to spray at low temperatures and high humidity
- Excellent abrasion and impact resistance
- Good chemical resistance
- Excellent corrosion resistance
- High tensile and tear strength
- Bonds to virtually all substrates of any dimension, including metals, woods, concrete, fiberglass and geotextiles
- Stable from -40° to 175°F (-40° to 80°C)
- 100% solids, zero VOCs, no solvents

CHEMICAL PROPERTIES*:	Standard Test	Isocyanate (A)	Resin (B)
Specific Gravity (grams/cc)	ASTM D-792	1.15 – 1.21	1.03 – 1.05
Viscosity, CPS at 77°F (25°C)		150 – 350	500 – 700
Solids by Volume/Weight		100%	100%
Volatile Organic Compounds		0 lbs/gal	0 lbs/gal
Mix Ratio, Parts per Volume		1	2
Gel Time, Seconds		3 – 6	
Tack-free, Seconds		4 – 7	
Shelf Life - Unopened Containers		12 months	12 months
Base Color		amber/brown	opaque

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

TYPICAL PHYSICAL PROPERTIES:

	Test	Result
Hardness (Shore D)	ASTM D-2240	55±5
Tensile Strength (psi)**	ASTM D-412	3100 – 3300
Elongation (%)**	ASTM D-412	70 – 80
Compressive Strength (psi)	ASTM D-695	>800
Taber Abrasion Resistance (mg of loss/1000 cycles) CS17 Wheel; 1000 grams weight	ASTM D-4060	25 – 30
Tear Resistance (pli)** Die C	ASTM D-624	500 – 600
Ross Flex (% crack growth per 50,000 cycles)	ASTM FIA-308	x
Water Absorption (%)	ASTM D-570	≤1.5
Dielectric Strength (volts/mil)	ASTM D-149	300
Volume Resistancy (ohm/inches)	ASTM D-257	6 X 10 (12)

RHINO HYBRID™ 21-60

TYPICAL PHYSICAL PROPERTIES (continued):

	Test	Result
Dielectric Constant (MHz)	ASTM D-150	5.4
Dissipation Factor (MHz)	ASTM D-150	0.058 A
Cathodic Disbonding	ASTM G-8	Pass

*Properties were checked using Rhino Hybrid™ polyurea lining, 1/8" (125 mils), (3.18 mm) thick.

PROCESS TEMPERATURE AND EQUIPMENT REQUIREMENTS: Rhino Hybrid™ 21-60 must be spray-applied using high pressure 2:1 heated plural component equipment. Following recommended parameters will help ensure optimum quality.

Iso (A) & Resin (B) Components	Hose Temperature	Processing Pressure
135 – 150° F (57 – 65° C)	135 – 150° F (57 – 65° C)	2200 – 2800 psi

CHEMICAL RESISTANCE: Good resistance to many commercial and industrial chemicals such as acids, alkalies, oils and cleaning chemicals. For specific applications and information, please consult a Rhino Linings® representative.

STORAGE: Rhino Hybrid™ 21-60 components should be stored in sealed containers at 60 – 90°F in a dry area.

COLOR OPTIONS: Color - Unpigmented. Rhino Hybrid™ 21-60 can be pigmented in 10 standard colors—separate order necessary. Custom colors are also available by special order.

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.

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.

©2017 Rhino Linings Corporation. All rights reserved.