

Part A – SolarMax® 21-50 Iso – Part # 60350
Part B – SolarMax® 21-50 Resin – Part # 60360

DESCRIPTION: SolarMax® is a two-component, 100% solids (no VOCs, no solvents), exothermic, rapid curing, elastomeric polyurethane lining system. SolarMax® is based on aliphatic chemistry which has excellent color and gloss stability. This product combines the durability of a tough elastomer with the color and gloss stability of a urethane topcoat into one product.

TYPICAL USES:

- Paint replacement
- Color stable applications
- Excellent protective lining for applications requiring color stability and durability such as:
 - Floor and wall protection in industries such as food processing, food storage, veterinary, production area and laboratories
 - Marine applications such as boat decks
 - Walkways, stairwells and decks
- 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.
- Bonds to virtually all substrates of any dimension, including metals, woods, concrete and fiberglass
- Reduces noise from vibration and impact
- Stable from -40° – 175°F (-40° to 79.4° C)

FEATURES & BENEFITS:

- Lining thickness varies based on application, ranging from 40 mils (1 mm) to 100 mils (2.5 mm).
Truck bed floor minimum: 80 mils (2 mm)
- High tensile strength and tear strength properties
- Excellent corrosion resistance
- Very good abrasion and impact resistance
- Good chemical resistance

CHEMICAL PROPERTIES*:	Standard Test	Isocyanate (A)	Resin (B)
Specific Gravity (grams/cc)	ASTM D-792	1.07	1.07
Viscosity, CPS		1300 – 1700	800 – 1200
Mix Ratio, Parts per Volume		1	2
Mix Ratio, Parts per Weight		53	100
Solids by Volume/Weight		100%	100%
Volatile Organic Compounds		0 lbs/gal	0 lbs/gal
Gel Time, Seconds		22 – 25	
Tack-free, Seconds		45 – 55	
Shelf Life - Unopened Containers		6 months	6 months
Base Color		clear	light amber

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

TYPICAL PHYSICAL PROPERTIES:	Test	Result
Hardness (Shore D)	ASTM D-2240	50±5
Tensile Strength (psi)**	ASTM D-412	1300 – 1700
Elongation (%)**	ASTM D-412	140 – 200
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	170 – 230
Ross Flex (% crack growth per 50,000 cycles)	ASTM FIA-308	0

SOLARMAX® 21-50**TYPICAL PHYSICAL PROPERTIES (continued):**

	Test	Result
Coefficient of Friction on Steel		
Static	ASTM D-1894-95	.6
Kinetic	ASTM D-1894-95	.5
Water Absorption (%)	ASTM D-570	≤1.6
Dielectric Strength (volts/mil)	ASTM D-149	300
Volume Resistancy (ohm/inches)	ASTM D-257	6 X 10 (12)
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 of SolarMax® polyurethane lining, 80 mils (2 mm) thick stock.

DRY FILM THICKNESS RANGE:

Varies based on application, typically minimum of 40 mils (1 mm) up to 100 mils (2.5 mm)

PROCESSING CHARACTERISTICS:

Equipment Used	Process Pressure	Spray Gun	Mix Module
RhinoPro™ HP-21	2000 – 2500 psi	Fusion - Air Purge or Mechanical Purge	AR 2232

Process Temperatures

Isocyanate Temperature	Resin Temperature	Hoses*
140° – 150°F (60° – 66°C)	150° – 160°F (66° – 70°C)	140° – 160°F (60 – 70°C)

*Hose heat cannot drop below the lowest set temperature

NOT RECOMMENDED FOR:

- Sustained temperatures below -40° F (-40° C) or above 175° F (79.4° C)
- Application to high density polyethylene or thermo plastics

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 our chemical resistance chart available on our website or speak to a Rhino Linings® representative.

SUBSTRATES: Metals, wood, concrete, fiberglass, and geotextiles

COLOR OPTIONS: Selected colors available by special order with the exclusion of special effect pigments such as metallics and pearlescents. Color range includes pastels to deep shade colors based on pigment availability. Please contact Rhino Linings Corporation for a color evaluation.

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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