Rhino Linings®

Rhino SolarMax™

11-60
Data Sheet

Part #60398 – Isocyanate
Part #60399 – Resin

DESCRIPTION

SolarMax® is a two-component, 100% solids (no VOCs, no solvents), exothermic, rapid curing, polyaspartic polyurea lining system. SolarMax® is based on aliphatic chemistry which has excellent color and gloss stability. This product combines the durability of a tough polyurea elastomer with excellent color and gloss stability of a topcoat into one product. An ideal coating for application that require a UV-stable, high-gloss finish.

TYPICAL USES

- Applications Requiring a Color Stable Protective Lining for Abrasion, Impact and Corrosion Resistance
- Spray-On Application Creates a Monolithic, Seamless Lining Which Conforms to Any Shape and Size
- Tough, Durable Lining for Military Applications Such as:
  - Tactical Vehicles and Equipment Requiring Abrasion, Corrosion and Impact Protection
  - High Tensile and Tear Resistance Properties

FEATURES AND BENEFITS

- Excellent Weather Resistance
- Excellent Color and Gloss Retention for Both Light and Dark Colors
- Excellent Impact Resistance
- Excellent Abrasion Resistance
- Excellent Corrosion Resistance
- Good Chemical Resistance
- Excellent Flexibility
- High Tensile Strength and Tear Strength
- Maximum Thickness-Unlimited

CHEMICAL PROPERTIES	TEST	Isocyanate (A)	Resin (B)
Specific Gravity	ASTM D-792	1.15	1.06
Viscosity, CPS at 80°F (26.7°C)		950-1150	1100-1300
Solids by Volume/Weight		100%	100%
Volatile Organic Compounds		0 lbs/gal	0 lbs/gal
Mix Ratio, Parts per Volume		1	1
Mix Ratio, Parts per Weight		105	100
Gel Time, Seconds at 77°F (25°C)		2-5	
Tack-free, Seconds		2-7	
Full Cure		72 hrs	
Theoretical Coverage		1600 sqft/gal at 1 mil thick	
Odor		slight musty	
Freezing Point		< 50°F (10°C)	
Color		clear	clear
Shelf Life - Unopened Containers		12 months	12 months

TYPICAL PHYSICAL PROPERTIES	TEST	RESULT
Hardness (Shore D)	ASTM D-2240	65±5
Tensile Strength (psi)*	ASTM D-412	2100-2400
Tear Resistance (pli) Die C*	ASTM D-624	300-370
Elongation (%)*	ASTM D-412	40-50
Density (lb/ft3)	ASTM D-1622	65-70
Mandrel Bend, 180°, 2 inch mandrel	ASTM D-522	Pass
Water Absorption-24 hours	ASTM D-570	1.0
Elcometer Adhesion Pull Test	ASTM D-4541	Pass

*Properties were checked on sprayed lining samples, 1/8" (125 mils), (3.18 mm) thick stock.

PROCESSING PARAMETERS

Test samples were sprayed using the following:

Equipment Used	Process Pressure	Spray Gun	Mix Module
Graco Reactor EXP-2	2300 psi (static) / 1900-2000 psi (dynamic)	Fusion-Air Purge	AR2929

Process Temperatures – The system settings required to achieve quality lining application will vary depending on environmental and substrate conditions. The following recommended parameters will help ensure optimum lining quality.

Isocyanate Temperature (A)	Resin Temperature (B)	Hoses - High Pressure	Substrate Surface
150-160°F (66-71°C)	150-160°F (66-71°C)	155°F (68°C)	60-110°F (15-43°C)

DRY FILM THICKNESS

Varies based on application, typically a minimum of 1/16" (62.5 mil; 1.5mm) up to unlimited thickness.

SUBSTRATES

Can be applied to any surface that has been properly prepared.

COLOR OPTIONS

Full range of colors.

HOW SUPPLIED

Net weight per set is 910 pounds (412.7 kg). A set of SolarMax® consists of one (1) 55 gallon (208 L) drum of 'A' component and one (1) 55 gallon (208 L) drum of 'B' component. Also available in pony drums, hedpacks and cartridges.

STORAGE

Store in sealed containers at 60-90°F (16-32°C) in a dry area.

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 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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Rhino Linings Corporation
9747 Businesspark Avenue, San Diego, CA 92131
858-450-0441 | Fax 858-450-6881
800-422-2603
www.rhinolinings.com