

**DESCRIPTION:** Rhino Eco-Coat® 11-85 is a fast set, rapid curing plural component aluminized hybrid polyurea spray applied lining designed for rejuvenating aged recreational vehicle and trailer roofs. Rhino Eco-Coat produces a tough, abrasion and chemical resistant film that can be applied to flat, vertical and overhead surfaces in a single or multiple pass application from 10 mils to 50 mils without sag or runs. This bondable, paintable, versatile product remains flexible in cold temperatures and contains UV stabilizers for enhanced UV stability. It can be sprayed using high pressure plural component spray equipment. For proper application, it is essential to use approved plural component equipment.

**TYPICAL USES:**

- Recreational vehicle and trailer roofs

**FEATURES & BENEFITS:**

- Fast Cure – Can be walked on within minutes of being sprayed
- Water Proof – Prevents penetration of water
- Flexible – For long term impact and crack resistance
- Durable – High tensile strength, chemical and abrasion resistance
- Labor Savings – Required mils can be applied in one coat
- Excellent adhesion to most surfaces
- Thermal Stability – From -30°F to 230°F (-34°C to 110°C)
- Environmentally Friendly – low VOCs

<b>CHEMICAL PROPERTIES:</b>	<b>Test</b>	<b>Isocyanate (A)</b>	<b>Resin (B)</b>
Specific Gravity (grams/cc)	ASTM D-792	1.14	1.01
Viscosity, cps		300 – 450	850 – 1100
Solids by Volume/Weight		100%	100%
Volatile Organic Compounds		low	low
Mix Ratio, parts per volume		1	1
Odor		Sweet	Slight solvent
Color		Clear/Yellow	Silver/Metallic
Shelf Life - Unopened Containers		12 months	12 months

<b>REACTION TIME &amp; COVERAGE:</b>	<b>Result</b>
Gel Time, seconds	10 – 15
Tack Free, seconds	20
Recoat, max	1 – 2 hrs
Return to Service	1 – 2 hrs
Cure Time	24 hrs @ 70°F (21°C) (longer at lower temp)
Theoretical Coverage	160 sqft/gal @ 10 mils 107 sqft/gal @ 15 mils 80 sqft/gal @ 20 mils 54 sqft/gal @ 30 mils 40 sqft/gal @ 40 mils 32 sqft/gal @ 50 mils

<b>TYPICAL PHYSICAL PROPERTIES:</b>	<b>Test</b>	<b>Result</b>
Hardness (Shore A)	ASTM D-2240	85±5
Tensile Strength (psi)	ASTM D-638	1850 – 1950
Tear Resistance (pli) Die C	ASTM D-624	300 – 400
Elongation (%)	ASTM D-638	380 – 420

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## RHINO ECO-COAT® 11-85

### TYPICAL PHYSICAL PROPERTIES (continued):

	Test	Result
Taber Abrasion Resistance (mg of loss/1000 cycles) H18 Wheel; 1000 grams weight	ASTM D-4060	170
Permeability (perms)	ASTM E-96	0.022
Weathering/UV Resistance (2,000 hrs):	ASTM G-53	No integrity loss
Solar Reflectance*		76%
Solar Reflectance Index*		77
Thermal Emittance*		.27

\*Properties were checked on the standard color - silver metallic

**PROCESS TEMPERATURE AND ENVIRONMENT CONDITIONS:** The system settings required to achieve a quality spray application will vary depending on environmental and substrate conditions. The following recommended parameters will help ensure optimum sealant quality.

Equipment	Process Pressure	Spray Gun
1:1 ratio proportioner that maintains pressure and temp specs	2000 – 3000 psi (static)	Various - see mfg specs

#### Process Temperatures

Iso & Resin Component	Substrate Surface
170° – 190°F (76.7° – 87.8°C)	>40°F (4°C) & 5°F above dew point

**DRY FILM THICKNESS:** Varies based on application, typically a minimum of 25 mil (0.635 mm) up to unlimited thickness

**PREPARATION:** Any physical damage to the roof must be repaired prior to coating application. Roof surface must be clean, dry and free of any mildew, oil, grease, dirt, loosely adhered roofing materials, or other foreign contaminants that would prevent proper adhesion. Oily or painted surfaces may require solvent cleaning and abrading or scarifying of the surface to provide mechanical adhesion of the coating. Non-painted surfaces should be clean and rough enough to provide good mechanical adhesion. After contaminants are removed, and roof surface has been rinsed, application surfaces must be checked for compatibility. Always perform a coating adhesion test before doing the entire roof. Depending on the roof surface type and condition, a primer may be required to ensure proper adhesion.

**APPLICATION INSTRUCTIONS:** The successful installation of Rhino Eco-Coat 11-85 will depend on the equipment capabilities and settings, the temperature of the coating in the container, ambient temperature and relative humidity percentage, substrate temperature and moisture content, substrate type and condition. It is the responsibility of the applicator to take these factors into consideration prior to installation. If material appears thickened due storage at cold temperatures, store material for a sufficient length of time in a warm area prior to application to bring material temperature to 70°F (21°C). Thinning is not recommended.

Rhino Eco-Coat 11-85 is applied in two or more separate coats to ensure proper coverage, cure rate, and to provide a continuous, durable film without pinholes. Individual coats of Rhino Eco-Coat 11-85 should be applied in perpendicular direction to the previous coat.

**NOT RECOMMENDED FOR:** Applications where direct contact with extremely high or low pH will occur.

**CHEMICAL RESISTANCE:** Rhino Eco-Coat provides good resistance to many commercial and industrial chemicals such as acids, alkalis, oils and cleaning chemicals. For specific applications and information, please consult a Rhino® representative.

**SUBSTRATES:** Bonds to virtually all substrates of any dimension, including metals, wood, concrete and fiberglass.

**COLOR OPTIONS:** Standard color – reflective silver

**HOW SUPPLIED:** Chemical is packaged in drums or pails. A drum set of Rhino Eco-Coat consists of one (1) 55 gallon (208 L) drum of 'A' component and one (1) 55 gallon (208 L) drum of 'B' component.

Set part #: EC1185 SET

Part A - iso, part #: FFPU-ECOCOAT 1185 PT A

Part B - resin, part #: FFPU-ECOCOAT 1185 PT B

**STORAGE:** Rhino Eco-Coat 11-85 should be stored between 50 – 95°F (10 – 35°C). It is affected by moisture and must be protected from moisture contamination. Rhino Eco-Coat must never be stored in direct sunlight or allowed to freeze.

### **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

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**RHINO ECO-COAT® 11-85 (continued):**

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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