



**Ultimate Linings**

## **UL LP-2299**

### *Two Component Modified Polyurea Protective Coating*

#### **DESCRIPTION**

**UL LP-2299** is a two component, 1:1.88, 100% solids, fast set, liquid applied, modified polyurea liner system for metal, concrete, fiberglass and wood surfaces.

#### **FEATURES**

Seamless / High Build / Tough and Elastomeric / Quick Drying / Chemical Resistant / Low Temperature Flexibility / Abrasion and Impact Resistant / Low Pressure Application

#### **TYPICAL USES**

Truck Bed Surfaces / Cargo Holds / Utility Vehicles / Horse Trailers / Cargo liners Walkways / Boat Linings Mold Castings / Waterproof Decking Encapsulation of Fiberglass Bodies.

#### **COLOR**

Clear/Neutral or Black. Custom colors are available upon request. Color packs, when used, must be added to Part-B. Due to its aromatic composition, UL LP-2299 will tend to yellow or darken in color after exposure to UV light. **UL LP-2299** may be top coated within twelve hours of application with an aliphatic polyurethane/polyurea coating for a colorfast finish.

#### **PACKAGING**

One 55 gallon drum net content 500 lbs. of Side-A (Isocyanate side) and two 55 gallon drum net content 450 lbs. each drum of Side-B (Resin side).

#### **COVERAGE**

**UL LP-2299** may be applied at any rate to achieve desired thickness. Theoretical coverage for 1 mil thickness is one gallon per 1600 sq. ft.

#### **SURFACE PREPARATION**

In general, coating performance and adhesion are directly proportional to surface preparation. Most failures in the performance of surface coatings can be attributed to poor surface preparation. Polyurea coatings rely on the structural strength of the substrate to which they are applied. All surfaces must be free of dust, dirt, oil, grease, rust, corrosion and other contaminants. When coating substrates previously used, it is important to consider the possibility of substrate absorption, which may affect the adhesion of the coating system, regardless of the surface preparation. Ultimate Linings recognizes the potential for unique substrates from one project to another. The following information is for general reference, and for project-specific questions, contact Ultimate Linings.

#### **New and Old Concrete:**

Refer to SSPC-SP13/NACE 6, or ICRI 03732: CSP 3-5. New concrete must be cured for 28 days prior to product application. Surface must be clean, dry, sound and offer sufficient profile for product adhesion. Remove all dust, dirt, oil, form release agents, curing compounds, salts, efflorescence, laitance and other foreign matter by shot blasting and/or suitable chemical means, in accordance with local chemical regulations. Rinse thoroughly, to achieve a pH between 8.0 and 11.0. Allow to dry completely. If old concrete has a surface that has deteriorated to an unacceptably rough surface, UL BC 371 or a mixture of UL PM 32 and sand should be used as a repair agent for cracks, spalls, bug holes and voids. Upon full cure of the repair agent, prime the entire surface intended for coating.

#### **Concrete Surface Preparation Reference:**

ASTM D4258 - Standard practice for cleaning concrete  
ASTM D4259 - Standard practice for abrading concrete  
ASTM D4260 - Standard practice for etching concrete  
ASTM F1869 - Standard test method for measuring moisture vapor emission rate of concrete ICRI 03732 - Concrete surface preparation

**Wood:**

All wood should be clean, dry and free of any knots, splinters, oil, grease or other contaminants. Splintered or rough areas should be sanded. Knots should be repaired using UL BC 371 with sand. Upon full cure of the repair agent, prime the entire surface intended for coating.

**Steel (Atmospheric and Immersion Exposure):**

Remove all oil, grease, weld spatters and round off any sharp edges from surface. Minimum surface preparation is Near White Metal Blast Cleaning per SSPC-SP10/NACE 2. Optimum surface profile is 2-3 mils. Prime and shoot UL on to any bare metal the same day as it is cleaned to minimize any potential flash rusting.

**Aluminum:**

Aluminum should be blasted with aluminum oxide or sand, and not with steel or metal grit. Excessive blasting may result in a warped or deformed surface. After blasting, wash aluminum with a commercially available aluminum cleaner. Allow to dry, then prime.

**Brass and Copper:**

Brass and copper should be blasted with sand, and not with steel or metal grit. Remove all dust and grease prior to applying primer.

**Galvanized Surfaces:**

Clean and degrease any contaminated surfaces before priming. Do not blast galvanized surfaces with an abrasive grit. An adhesion test is recommended prior to starting the project.

**Fiberglass Reinforced Plastic:**

The gel coat should be lightly blasted or sanded with 80 grit sandpaper and cleaned.

**Plastic Foams:**

Enhanced adhesion is obtained when the foam is mechanically abraded. When coating polystyrene, do not use a solvent-based primer.

**Textiles, Canvas, Fabrics:**

Adhesion to most fabrics, geothermal membranes and textiles does not require a primer.

**Stainless Steel:**

Stainless steel may be grit blasted and degreased before priming. Some stainless steel alloys are so inert that it is not possible to achieve a satisfactory bond. An adhesion test is recommended prior to starting the project.

**New and Old Cast Iron:**

Blast with a steel grit and degrease before priming. Old cast iron is difficult to prepare for a satisfactory bond. It can absorb oil and water soluble contaminants that will keep returning to the surface after the coating system has been applied and affect the coating system adhesion. An adhesion test is recommended prior to starting the project.

**All Other Surfaces:**

An adhesion test is recommended prior to starting the project.

**MIXING**

**UL LP-2299** may not be diluted under any circumstances. Thoroughly mix UL LP-2299 Part-B (Resin side) with air driven power equipment until a homogeneous mixture and color is obtained.

**APPLICATION**

Both Side-A and Side-B materials should be preconditioned to 75-80°F before application. Recommended surface temperature must be at least 5°F above the dew point. **UL LP-2299** should be applied using plural component, low pressure spray mixing equipment. The simple spray equipment can have a single motor driving two separate fixed ratio proportioning pumps. Side-A and Side-B are pumped separately to a static mixing tube for air assisted or airless spray. It is recommended to use a x 24 element mixing wand/Static spiral mixer for proper mixing. Contact Ultimate Linings Products for further information.

**STORAGE**

**UL LP-2299** has a shelf life of six (6) months from date of manufacture in original, factory sealed containers. Avoid exposure to freezing temperatures. Store drums on wooden pallets to avoid direct contact with the ground. If stored for a long period of time, rotate Side-A and Side-B drums regularly.

## LIMITATIONS

Do not open until ready to use. Both Side-A and Side-B containers must be fitted with a desiccant device during use.

## WARNING

This product contains isocyanate and curative material.

### TECHNICAL DATA

Mix Ratio, by volume .....	1A:1.88B
Pot Life .....	12-16 seconds
Tack Free Time (@ 150 mils thickness) .....	40-60 seconds
Recoat Time .....	6-12 hours
Viscosity at 80°F (27°C), Brookfield:	
Side-A .....	700-900 cps
Side-B .....	700-900 cps
Density (Side-A & B Combined) .....	9.2 lbs/gal
Flash Point .....	>200°F
Hardness, ASTM D-2240 .....	91-93 Shore A
Tensile, ASTM D-412 .....	1300 ± 200 psi
Elongation, ASTM D-412 .....	200 ± 50%
Tear, ASTM D-624 .....	175-200 pli
Service Temperature .....	-20°F to 200°F
Note: Above physicals are from lab drawn films. Actual spray physicals may vary.	

Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your local Ultimate Linings Products representative or visit our website for recently updated instructions and data.

#### Limited Warranty

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