



Ultimate Linings

UL LP 23 E

Two Component Modified Polyurea Protective Coating

DESCRIPTION

UL LP 23E is a two component, 1:2, 100% solids, high elongation, 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 / Industrial Floorings
Boat Linings / Walkways / Waterproof Decking / Mold Castings / Encapsulation of Fiberglass Bodies
Secondary Containment Lining with or without Geo Textile.

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 23E** will tend to yellow or darken in color after exposure to UV light. **UL LP 23E** may be top coated within twelve hours of application with an aliphatic polyurethane/polyurea coating for a colorfast finish.

PACKAGING

15 gallon kit: 5 gallons Side-A (Isocyanate side) and 10 gallons Side-B (Resin side). 150 gallon kit: 50 gallons Side-A (Isocyanate side) and 100 gallons Side-B (Resin side).

COVERAGE

UL LP 23E 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 23E 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 23E may not be diluted under any circumstances. Thoroughly mix **UL LP 23E** 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 23E** 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 23E 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:2B
Pot Life	14-18 seconds
Tack Free Time (@ 150 mils thickness)	40-60 seconds
Recoat Time	6-12 hours
Viscosity at 80°F (27°C), Brookfield:	
Side-A	900-1000 cps
Side-B	700-900 cps
Density (Side-A & B Combined)	9.2 lbs/gal
Flash Point	>200°F
Hardness, ASTM D-2240	85 ± 5 Shore A
Tensile, ASTM D-412	2800 ± 200 psi
Elongation, ASTM D-412	430 ± 50%
Tear, ASTM D-624	220 ± 20 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

Ultimate Linings Products warrants its products to be free from manufacturing defects and that they will meet Ultimate Linings Products current published physical properties. Ultimate Linings Products warrants that its products, when properly installed by a state licensed waterproofing contractor according to Ultimate Linings Products guide specifications and product data sheets over a sound, properly prepared substrate, will not allow water migration for a period of one (1) year. Sellers and manufacturers sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. There are no other warranties by Ultimate Linings Products of any nature whatsoever expressed or implied, including any warranty of merchantability of fitness for particular purpose in connection with this product. Ultimate Linings Products shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. Ultimate Linings Products shall not be responsible for use of this product in a manner of infringe on any patent held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. Ultimate Linings Products reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

DISCLAIMER

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the user's responsibility to satisfy himself, by his product for his own intended use, application and job situation on the user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazards listed herein are the only ones, which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and Ultimate Linings Products makes no claim that these tests or any other tests accurately represent all environments.