

# EVERROOF LPM 11 FR

## Fire Retardant

## Two Component Modified

## Polyurea Protective Coating

### DESCRIPTION

Everroof LPM 11 FR is a Class 1 fire-rated, two component, 1:1, 100% solids, fast set, liquid applied, modified polyurea liner system for metal, concrete, fiberglass and wood surfaces.

### FEATURES

- ❖ Meets ASTM E-84 Class 1 Fire Test Criteria
- ❖ Seamless
- ❖ High Build
- ❖ Tough and Elastomeric
- ❖ Quick Drying
- ❖ Chemical Resistant
- ❖ Low Temperature Flexibility
- ❖ Abrasion and Impact Resistant

### TYPICAL USES

- ❖ Truck Bed Surfaces
- ❖ Utility Vehicles
- ❖ Cargo liners
- ❖ Boat Linings
- ❖ Waterproof Decking
- ❖ Encapsulation of Fiberglass Bodies and Polystyrene Foams
- ❖ Cargo Holds
- ❖ Horse Trailers
- ❖ Industrial Floorings
- ❖ Walkways
- ❖ Containment Areas

### COLOR

Clear/Neutral. Custom colors are available upon request. Color Packs, when used, must be added to Part-B. Due to its aromatic composition, Everroof LPM 11 FR will tend to yellow or darken in color and will become flat after exposure to UV light. Everroof LPM 11 FR may be topcoated within twelve hours of application with an aliphatic polyurethane/polyurea coating for a colorfast finish.

### PACKAGING

10 gallon kit: One 5 gallon pail of Part-A (Isocyanate side), one 5 gallon pail (net fill 4.5 gal) of Part-B (Resin side) and one 1 gallon can (net fill 0.5 gal) of Part C (Resin side).

100 gallon kit: One 50 gallon drum of Part-A (Isocyanate side), one 50 gallon drum (net fill 45 gal) of Part-B (Resin side) and one 5 gallon pail of Part C (Resin side).

### MIXING

Everroof LPM 11 FR may not be diluted under any circumstances. Thoroughly mix Everroof LPM 11 FR Part-A and Part-B with air driven power equipment.

Mix Part-C into Part-B container until a homogeneous mixture and color is obtained. For a 10 gallon kit, mix for 5 minutes. For a 100 gallon kit, mix for 20 minutes.

### COVERAGE

Everroof LPM 11 FR may be applied at any rate to achieve desired thickness. Theoretical coverage for 1 mil thickness is one gallon per 1600 sq. ft.

### TECHNICAL DATA

Mix Ratio, by volume .....	1A:1B
Pot Life @ 160°F (71°C) .....	3 - 6 seconds
Tack Free Time (150 mils thick) .....	10-30 seconds
Recoat Time .....	0-12 hours
Viscosity @ 150-160°F (65.5-71°C), Brookfield:	
Side-A .....	150 ± 50 cps
Side-B .....	200 ± 20 cps
Density (Side-A & B Combined) .....	13.03 lbs/gal
Flash Point .....	>200°F
Hardness, ASTM D-2240* .....	50 ± 5 Shore D
Tensile, ASTM D-412* .....	1600 ± 200 psi
Elongation, ASTM D-412* .....	45 ± 20%
Tear, ASTM D-624* .....	350 ± 20 pli
Service Temperature .....	-20°F to 250°F

(\*These physical properties from sample sprayed with Graco Foam Cat 200 @ 2000 psi minimum, with Gusmer GX7-400 mechanical purge gun @ 150-160°F. Different machine and parameter will change these properties. User should perform their own independent testing as properties are approximate.)

### 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. Everroof recognizes the potential for unique substrates from one project to another. The following information is for general reference, and for project-specific questions, contact Everroof.

#### 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 shotblasting 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.

**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

**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.

**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**

Everroof LPM 11 FR may not be diluted under any circumstances. Thoroughly mix Everroof LPM 11 FR Part-A and Part-B with air driven power equipment until a homogeneous mix-ture and color is obtained.

**APPLICATION**

Both Side-A and Side-B materials should be preconditioned to 90-100°F before application.

Both Side-A and Side-B materials should be continuously agitated before and during application. Agitate at least one hour prior to application using heavy duty drum agitator.

Both Side-A and Side-B lines must have filters removed. Use a round pattern disc for spraying. Orifice diameter must be 0.042" or greater.

Recommended surface temperature must be at least 5°F above the dew point.

Everroof LPM 11 FR should be applied using a plural component, heated, high pressure 1:1 spray mixing equipment like Graco's Reactor, Glass Craft or other equivalent machine may be used.

Both Part-A and Part-B materials should be sprayed at a minimum of 2000 psi and at temperatures above 150°F. Adequate pressure and temperature should be maintained at all times.

Everroof LPM 11 FR should be sprayed in smooth, multi-directional passes to improve uniform thickness and appearance.

**STORAGE**

Everroof LPM 11 FR has a shelf life of six (6) months from date of manufacture, in factory-sealed containers.

Part-A and Part-B drums are recommended to be stored above 60°F. Avoid freezing temperatures. Store drums on wooden pallets to avoid direct contact with the ground.

If stored for a long period of time, rotate Part-A and Part-B drums regularly.

**LIMITATIONS**

Do not open until ready to use.

Both Part-A and Part-B containers must be fitted with a desiccant device during use.

**WARNING**

This product contains Isocyanates and Curative Material.

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

**LIMITED WARRANTY**

Everroof warrants its products to be free of manufacturing defects and that they will meet Everroof current published physical properties. Everroof warrants that its products, when properly installed by a state licensed waterproofing contractor according to Everroof guide specifications and product data sheets over a sound, properly prepared substrate, will not allow water migration for a period of one (1) year. Seller's and manufacturer's 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 Everroof of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. Everroof 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. Everroof shall not be responsible for use of this product in a manner to 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. Everroof 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 own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazard 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 the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and Everroof makes no claim that these tests or any other tests, accurately represent all environments.