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
- ❖Cargo Holds
- ❖Horse Trailers
- ❖Industrial Floorings
- ❖Walkways
- ❖Containment Areas
- ❖Encapsulation of Fiberglass Bodies and Polystyrene Foams

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 fil 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 fil 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 becontinuously 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 ap-pearance.

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.