



Product Description

Polyeuro® MPL 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
- » Containment Areas
- » Cargo Holds
- » Horse Trailers
- » Wood Pedestrian Walkways
- » Encapsulation of Fiberglass Bodies and Polystyrene Foams

PACKAGING

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

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

Colors

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

Mixing

Polyeuro® MPL 11 FR may not be diluted under any circumstances. Thoroughly mix Polyeuro® MPL 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

Polyeuro® MPL 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 (BASED ON DRAW DOWN FILM)

Mix Ratio by Volume	1A : 1B (with B & C)
Pot Life @ 75°F (24°C), 50% R.H.	3 - 6 seconds
Tack Free Time (150 mils thick)	10 -30 seconds
Recoat Time	0 - 12 hours
Viscosity at 150-160°F (66.5-71°C)	
Side-A	150 ± 20 cps
Side-B	200 ± 20 cps
Density (Side A & B Combined)	13.03 lbs/gal
Flash Point	> 200°F (93.3°C)
Hardness, ASTM D-2240	50 ± 5 Shore D
Tensile Strength, ASTM D-412*	1600 ± 200 psi 11.03 ± 1.37 MPa
Elongation, ASTM D-412*	45 ± 20%
Tear Resistance, ASTM D-412*	350 ± 50 pli 61.4 ± 8.8 kNm
Service Temperature	-20°F to 250°F -29°C to 121°C

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

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. If old concrete has a surface that has deteriorated to an unacceptably rough surface, Polycoat Products PC-260 or a mixture of Polyprime 21 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 Polycoat Products PC-260 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 with recommended primer and spray Polyureo[®] MPL-11FR on to any bare metal the same day as it is cleaned to minimize any potential flash rusting.

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. Primer may be needed, consult Polycoat.

FIBERGLASS REINFORCED PLASTIC:

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

TEXTILES, CANVAS, FABRICS:

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

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.

MIXING

Polyureo[®] MPL 11 FR may not be diluted under any circumstances. Thoroughly mix Polyureo[®] MPL 11 Part-A and Part-B 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 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.

Polyureo[®] MPL 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.

Polyureo[®] MPL 11 FR should be sprayed in smooth, multi-directional passes to improve uniform thickness and appearance.

STORAGE

Polyureo[®] MPL 11 FR has a shelf life of twelve (12) months from date of manufacture, in factory-sealed containers.

Side-A and Side-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 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 Isocyanates and Curative Material.

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