



**Product Description**

Polyeuro® MPL 11 is a two component, 1:1, 100% solids, fast set, liquid applied, modified polyurea liner system for metal, concrete, fiberglass and wood surfaces.

**FEATURES**

- » Seamless
- » Tough and Elastomeric
- » Chemical Resistant
- » Low Temperature Flexibility
- » Abrasion and Impact Resistant
- » High Build
- » Quick Drying

**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

**PACKAGING**

- 10-gallon kit**      5 gallons (47 lbs. net) Part-A (Isocyanate side)  
                             5 gallons (43 lbs. net) Part-B (Resin side).
- 100 gallon kit:**    50 gallons (477 lbs. net) Part-A (Isocyanate side)  
                             50 gallons Part-B (Resin side) (neutral: 426 lbs. net; black: 420 lbs. net)

**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 will tend to yellow or darken in color and will become flat after exposure to UV light. Polyeuro® MPL 11 may be topcoated within twelve hours of application with an aliphatic polyurethane/polyurea coating for a colorfast finish.

**Coverage**

Polyeuro® MPL 11 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. Polycoat recognizes the potential for unique substrates from one project

**TECHNICAL DATA (BASED ON DRAW DOWN FILM)**

<b>Mix Ratio by Volume</b>	1A : 1B
<b>Pot Life</b>	5-10 seconds
<b>Tack Free Time</b>	40-60 seconds
<b>Recoat Time</b>	0-6 hours
<b>Viscosity at 150-160°F (66.5-71°C) , Brookfield:</b>	
Side-A	160 ± 20 cps
Side-B	40 ± 20 cps
<b>Density (Side A &amp; Side B Combined)</b>	8.55 lbs/gal
<b>Flash Point</b>	> 200°F (93.3°C)
<b>Hardness, ASTM D-2240</b>	90 ± 5 Shore A
<b>Tensile Strength, ASTM D-412*</b>	3200 ± 300 psi 22.04 ± 2.07 MPa
<b>Elongation, ASTM D-412*</b>	450 ± 50%
<b>Tear, ASTM D-412*</b>	325 ± 50 pli 56.82 ± 8.74 kNm
<b>Service Temperature</b>	
Dry	-40°F - 250°F
Wet	40°F - 120°F
<b>VOC Content</b>	0gm/l
<b>Recommended Applied Thickness</b>	>2mm
<b>Return to Service:</b>	
Foot Traffic	2-4 hours
Full Service	10-24 hours
<b>Taber Abrasion Resistance, ASTM D44060 (CS17 wheel, 1000 cycles, 1kg load)(maximum)</b>	33 mg loss
<b>Water Asorption, ASTM D471 (Maximum 23°C, 24 hours)</b>	<1.0
<b>Crack Bridging, ASTM C836 (-25°C, 1.6mm crack 25 Cycles)</b>	Pass
<b>Pull off Strength (Minimum) ASTM D4541 Inter-Coat Adhesion (Within recoat time)</b>	Excellent
<b>Concrete (Shot-blasted profile) Substrate Failure</b>	>500 psi
<b>Concrete (Primed) Substrate Failure at Steel (um blast profile)</b>	>500 psi >900 psi
<b>Lineal Shrinkage</b>	1-2%
<b>Flexibility (3mm Mendrel Bend Test) ASTM D1737</b>	PASS
<b>Resistance to Weathering, ASTM G-23 Type QUV Weatherometer-2000 hrs exposure</b>	No cracking or blistering Gloss reduction & Minor chalking are noted

(\*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.)

to another. The following information is for general reference. For project-specific questions, contact Polycoat.

**NEW AND OLD CONCRETE**

Refer to SS PC-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 D425 8 - 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 3-4 mils. Prime and shoot Polyeuro® onto 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.

#### **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. Contact Polycoat Products for recommended primer. 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.

#### **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. Contact Polycoat Products for recommended 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.

#### **ALL OTHER SURFACES**

An adhesion test is recommended prior to starting the project.

#### **Mixing**

Polyeuro® MPL 11 may not be diluted under any circumstances. Thoroughly mix Polyeuro® MPL 82 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.

Polyeuro® MPL 11 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.

Polyeuro® MPL 11 should be sprayed in smooth, multidirectional passes to improve uniform thickness and appearance.

#### **Storage**

Polyeuro® MPL 11 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.**

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