POLYCOAT PRODUCTS
A Division of American Polymers Corp.

TECHNICAL DATA SHEET

POLYEURO® LP-12

Two Component Modified Polyurea Protective Coating

Product Description

Polyeuro® LP-12 is a two component, 1:2, 100% solids, fast set, liquid applied, modified polyurea liner system for metal, concrete, fiberglass and wood surfaces.

Features

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

Typical Uses

- Boat Linings
- Cargo Holds
- Cargo Liners
- Encapsulation of Fiberglass BodiesHorse Trailers
- Mold Castings
- Truck Bed Surfaces
- Utility Vehicles
- Waterproof Decking

Packaging

15-gallon kit	5 gallons (18.9 liters) Side-A and 10 gallons (37.8 liters) Side-B
150-gallon kit	50 gallons (189 liters) Side-A and 100 gallons (378 liters) Side-B

Colors

Clear/Neutral or Black. Custom colors are available upon request. Color packs, when used, must be added to Side-B.

Due to its aromatic composition, Polyeuro® LP-12 will tend to yellow or darken in color after exposure to UV light. Polyeuro® LP-12 may be topcoated within twelve hours of application with an aliphatic polyurethane/polyurea coating for a colorfast finish.

Coverage

Polyeuro LP-12 may be applied at any rate to achieve desired thickness. Theoretical coverage for 1 mil (0.254 microns) thickness is one gallon per 1600 sqft (3.78 liters per 149 sqm).

Estimating Formula: (1600 sqft per gal /Dry Mil Thickness) x Solids Content = Application Rate per gallon.

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.

Technical Data (Based on Draw Down Film)

Mix Ratio by Volume	1A : 2B
Pot Life @ 75°F (24°C)	12-16-Seconds
Tack Free Time (150 mils thickness)	40-60 Seconds
Recoat Time	6 - 12 hours
Viscosity at 150-160°F (66.5-71°C) **Side-A** **Side-B**	 700-900 cps 700-900 cps
Density (Side-A & Side-B Combined)	9.2 lbs/gal
Flash Point	> 200°F (93.3°C)
Hardness, ASTM D2240	91-93 Shore A
Tensile Strength, ASTM D412*	1300 ± 200 psi 8.96 ± 1.37 MPa
Elongation, ASTM D412*	200% ± 50%
Tear Resistance, ASTM D412*	175 ± 25 pli 30.6 ± 4.37 kNm
Service Temperature Dry	-20°F to 200°F 30°C - 93°C

NOTE: Above physicals are from lab drawn films. Actual spray physicals may vary.

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. Opti-mum surface profile is 2-3 mils. Prime and shoot Polyeuro® 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
Polyeuro LP-12 may not be diluted under any circumstances. Thorougly mix Polyeuro LP-12 Side-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 75-80°F (24-27°C) before application.

Recommended surface temperature must be at least 5°F (3°C) above the dew point.

Polyeuro LP-12 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 recomended to use a x 24 element mixing wand/Static spiral mixer for proper mixing. Contact Polycoat Products for further information.

Storage
Polyeuro LP-12 has a shelf life of six (6) months from date of manufacture in original, factory-sealed containers at a temperature between 60-95°F (15-35°C).

Side-A and Side-B drums are recommended to be stored above 60°F (15°C). 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.