POLYCOAT PRODUCTS
A Division of American Polymers Corp.

TECHNICAL DATA SHEET

POLYEURO® 8245

Two Component Aromatic Polyurea Protective Coating

PRODUCT DESCRIPTION

Polyeuro® 8245 is designed for acid and base environments and is a fast set, rapid curing, 100% solids, flexible, aromatic, two component spray polyurethane polyurea that can be applied to suitably prepared concrete and metal surfaces. Its extremely fast gel time makes it suitable for applications down to -20°F (-28.89°C). It may be applied in single or multiple applications without appreciable sagging and is relatively insensitive to moisture and temperature allowing application in most temperatures.

FEATURES

- Coats Most Metals without Primer
- Excellent Acid & Base Resistance
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- Excellent Thermal Stability
- Extremely Low Permeance Rate
- Installed With or Without Reinforcement in Transitional Areas
- Low Temperature Flexibility
- Meets USDA Criteria
- Seamless

TYPICAL USES

- Cold Storage Facilities
- Fertilizer Plants
- Food Processing Plants
- Marine Environments
- Mining Operations
- Paper and Pulp Mills
- Power Plants
- Refineries
- Secondary Containment
- Structural Steel
- Water and Waste Water Treatment

PACKAGING

10-gallon kit: 5 gallon (18.9 liters) pail of Side-A, 5 gallon pail (18.9 liters) of Side-B

100-gallon kit: 5 gallon (189 liters) pail of Side-A, 5 gallon pail (189 liters) of Side-B

COLORS

Black and Grey. Custom colors are available upon request. Color Packs, when used, must be added to Side-B.

Due to its aromatic composition, Polyeuro® 8245 will tend to yellow or darken in color and will become flat after expo- sure to UV light

COVERAGE

Polyeuro® 8245 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).

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 previously used substrates, 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. For project-specific questions, contact Polycoat.

TECHNICAL DATA (BASED ON DRAW DOWN FILM)

Mix Ratio by Volume	1A : 1B
Pot Life @ 160°F (65.5°C), 50% R.H.	4 - 6 seconds
Tack Free Time (thickness & substrate temperature dependent)	60 - 80 seconds
Recoat Time	0 - 2 hours
Viscosity cps at 150-160°F (65.5-71°C) **Side-A** **Side-B**	 200 ± 20 500 ± 20
Density (Side A & B Combined)	8.75 lbs/gal 1050 kg/m³
Flash Point	> 200°F (93.3°C)
Hardness, ASTM D-2240	50 ± 5 Shore D
Tensile Strength, ASTM D-412*	2000 ± 200 psi (13.79 ± 1.37 MPa)
Elongation, ASTM D-412*	80% ± 20%
Tear Resistance, ASTM D-412*	300 ± 50 pli (52.5 ± 8.8 kNm)
Service Temperature - Dry	-40°F to 250°F (-40°C to 121°C)
Service Temperature - Wet	40°F to 120°F (4.44°C to 48.89°C)
Water Vapor Transmission ASTM E-96	0.88 Perm

(*These physical properties from sample sprayed with Graco EXP2 @ 2000 psi minimum, with Fusion Gun AP4242 @ 150-160°F (65°C to 71°C) blistering. Color change, gloss reduction & chalking are noted. Different machine and parameter will change these properties. User should perform their own independent testing as properties are approximate).

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 (50-76 microns). 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® 8245 may NOT be diluted under any circumstances. Thoroughly mix Polyeuro® 8245 Side-B (Resin side) with air driven power equipment until a homogeneous mixture and color is achieved.

APPLICATION
Both Side-A and Side-B materials should be preconditioned to 90-100°F (32-37°C) before application. Recommended surface temperature must be at least 5°F (3°C) above the dew point. Polyeuro® 8245 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 Side-A and Side-B materials should be sprayed at a minimum of 2000 psi and at temperatures above 150°F (66°C). Adequate pressure and temperature should be maintained at all times. Polyeuro® 8245 should be sprayed in smooth, multidirectional passes to improve uniform thickness and appearance.

STORAGE
Polyeuro® 8245 has a shelf life of one (1) year from date of manufacture in original, factory-sealed containers when stored indoors 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.

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