

## TECHNICAL DATA SHEET

# POLYEURO® 6881

Developed for Broadcast Aggregate
Polyurea Protective Coating

# **Product Description**

Polyeuro® 6881 is a relatively slow setting, 100% solids, flexible, two component, spray polyurea that can be applied to suitably prepared concrete and metal surfaces. Its relatively slow curing makes it suitable for application as a waterproofing decking system with enough open time to broadcast an aggregate. It may be applied in single or multiple applications on horizontal surfaces and is relatively insensitive to moisture and temperature allowing application in most temperatures. Polyeuro® 6881 offers a tack free time of eight to fifteen minutes and exhibits 375% elongation upon curing with 90 Shore A hardness.

### **Features**

- 100% Solids
- Enough OpenTimeTo Broadcast An Aggregate
- ExcellentThermal Stability
- Good Chemical Resistance
- Installed With or Without Reinforcement in Transitional Areas
- Low Permeance Rate
- LowTemperature Flexibility
- Meets USDA Criteria
- Non-Reactive
- No Toxic Vapors
- Odorless
- Seamless
- Zero VOC

## **Typical Uses**

- Food-Processing Plants
- Landfill Containment
- Mining Operations
- Parking-Garage Decks
- · Walkways and Balconies
- Warehouse Floors
- Water and Waste Water Treatment

## **Packaging**

**10-gallon kit** 5 gallons (18.9 liters) Side-A and 5

gallons (18.9 liters) Side-B

100 gallon kit 50 gallons (189 liters) Side-A and 50

(189 liters) gallons Side-B

#### **Colors**

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

Due to its aromatic composition, Polyeuro® 6881 will tend to yellow or darken in color and will become flat after exposure to UV light. Polyeuro® 6881 may be topcoated within twelve hours of application with an aliphatic polyurethane/polyurea coating for a colorfast finish.

Technical Data	
Mix Ratio by Volume	1A:1B
Gel Time @ 150°F (65.5°C), 50% R.H.	2-4 minutes
Tack Free Time 75 mils	8-15 minutes
RecoatTime	0-12 hours
Viscosity at 150-160°F (65.5-71°C) , Brookfield Side-A Side-B	250 ± 75 cps 40 ± 20 cps
Density(Side-A & Side-B Combined)	8.75 lbs/gal
Flash Point	> 200°F (93.3°C)
Hardness, ASTM D2240	90 ± 5 Shore A
Dry Film Thickness per Coat	20-100 mils
Tensile Strength, ASTM D412	1900 ± 150 psi 13.09 ± 1.03 MPa
Elongation, ASTM D412	375 ± 25%
Tear Strength, Die C, ASTM D624	300 ± 25 pli 52.45 ± 4.37 kNm
Service Temperature	-40°F - 250°F -40°C -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 (65°C to 71°C). Different machine and parameter will change these properties. User should perform their own independent testing as properties are approximate.

## Coverage

Polyeuro 6881 may be applied at any rate to achieve desired thickness. Theoretical coverage for 1 mil thickness is one gallon per 1600 sqft.

## **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 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® 6881 may not be diluted under any circumstances. Thoroughly mix Polyeuro® 6881 Side-B material with air driven power equipment until a homogeneous mixture and color is obtained.

## **Application**

Apply over prepared or suitably primed carbon steel or concrete. Application temperature for Polyeuro® 6881 should be between 40-120°F (4.4 - 48.8°C) with relative humidity of <85%.

Do not apply product unless temperature is at least 5°F (3°C) above the dew point. Recoat schedule is 1-3 hours dependent upon environment. See Specification Guide for re-coating guidelines and additional information.

## **Application Methods**

Check area of application to ensure that it conforms to the substrate requirements.

Use Graco "Hydra-Cat" 45:1 Airless equipment or equal designed for heated, plural-component, high pressure spray application. High pressure equipment should have the capacity to apply product to a maximum 2500 psi from the proportioner to meet job site conditions. Heat and maintain material temperature in a range of 95-110°F (35-43.3°C) and utilize insulated material hoses and application equipment to ensure spray consistency, metering and degree of cure of properly mixed product. Band heaters should not be used to heat or maintain temperature.

The conditioned materials shall be supplied to the proportioning equipment at a flowable, pumpable viscosity, and in such volume delivery to assure full supply for each pump stroke. Recirculation system and solvent purge equipment is necessary to keep material maintained and spray equipment clean during application stoppage and/or for periods when exceeding the product potlife.

### **Equipment Cleanup**

Equipment should be cleaned with an environmentally safe, urethane-grade solvent (alcohol free) as permitted under local regulations immediately after use.

### **Storage**

Polyeuro® 6881 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

Polyeuro® 6881 is not recommended for prolonged exposure to concentrated acids.

Do not open until ready to use.

Store drums on wooden pallets to avoid direct contact with the ground.

Avoid freezing temperatures.

No liability is assumed by Polycoat Products for substrate defects and/or improper substrate preparation and application.

#### Warning

This product contains Isocyanates and Curative Material.



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