# WATER-BASED POLYURETHANE

TWO-COMPONENT PROTECTIVE COATING SYSTEM

**TECHNICAL DATA SHEET**

## PRODUCT DESCRIPTION

Water-Based Polyurethane is a two-component protective coating designed to enhance properly prepared concrete and compatible polymer flooring systems. It creates a refined, easy-to-maintain surface with excellent adhesion, abrasion resistance, chemical resistance, early water resistance, and dependable resistance to ultraviolet exposure. Available in Matte, Satin, and Gloss, it is well suited for commercial, institutional, healthcare, educational, retail, and light-industrial interiors where durability and appearance are equally important.

## KEY BENEFITS

- Fast drying with early water resistance
- Long working time for controlled application
- Excellent adhesion to compatible substrates
- Strong abrasion and chemical resistance
- Low odor and less than 10 g/L VOC
- Matte, Satin, and Gloss finish options

## PRIMARY APPLICATIONS

- Grocery and department stores
- Hospitals and healthcare facilities
- Museums, banks, and institutional buildings
- Offices and government facilities
- Schools, colleges, and universities
- Commercial and general-service industrial environments

## PACKAGING AND TECHNICAL DATA

| Property | WATER-BASED POLYURETHANE |
|---|---|
| Kit Packaging | Two-container kit |
| Components | Part A: 1-gallon bucket \| Part B: 1-quart bucket |
| Mix Ratio by Volume | 5A : 1B |
| Supplied Ratio by Weight | 5A : 1B |
| Recommended Thickness | 4-6 mils |
| Coverage | Approximately 250-400 sq. ft. per gallon |
| Pot Life at 77°F | Approximately 1-3 hours |
| Solids Content | 60.4% by volume \| 64% by weight |
| VOC | Less than 10 g/L |
| Shelf Life | 12 months unopened; protect from temperature extremes |

## PHYSICAL PROPERTIES

| Property / Test Method | Typical Result |
|---|---|
| Abrasion Resistance - ASTM D4060 | 0.2 g loss (CS-17, 1000 g, 1000 cycles) |
| Water Absorption - ASTM D570 | 1.5% |
| Bond Strength - ASTM D4541 | Greater than 300 psi; substrate rupture |
| Impact Resistance - ASTM D2794 | 16/2 lb, direct/reverse |
| Viscosity at 77°F - Zahn Cup #4 | 18-22 seconds |
| Density - mixed | Approximately 8.8 lb/gal |
| Gloss at 60° | Gloss: 90 \| Satin: 35 \| Matte: 13 |

Typical values are based on laboratory testing and are not intended as guaranteed specifications. Field conditions, substrate profile, temperature, humidity, and application technique may affect performance.



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## CURING DETAILS

| Condition | Recoat | Pedestrian Traffic | Normal Traffic | Heavy Equipment | Full Cure |
|---|---|---|---|---|---|
| 73°F / 50% RH | 4-6 hours | 12-24 hours | 24-48 hours | After 72 hours | 7 days |

## SURFACE PREPARATION

Existing Concrete. The surface must be clean, sound, dry, properly primed, and mechanically prepared by shot blasting, abrasive blasting, or diamond grinding. Remove dust, oils, sealers, curing compounds, waxes, laitance, loose coatings, and all other bond-breaking contaminants. Do not apply to wet substrates. Check chloride, moisture, and pH conditions before application. Repair cracks, spalls, joints, and surface imperfections with compatible Florida Polymer repair materials before coating.

Previously Coated Surfaces. Confirm that the existing coating is sound and compatible. Mechanically abrade the surface to remove gloss and create a uniform profile. Remove all residue before application. Porous surfaces may require additional compatible primer.

## MIXING

Pre-condition both components to at least 59°F before use. Mix Part A and Part B separately for at least 2 minutes. Combine at the required 5A:1B volume ratio and mix for at least 3 minutes using a low-speed drill at 300-450 rpm. Scrape the sides and bottom of the container at least once to ensure a uniform blend. Prepare only the amount that can be installed within the available pot life.

## APPLICATION

Apply the mixed product in a thin, uniform film using a rubber squeegee or rake, then back-roll with a suitable roller. Maintain a wet edge and avoid puddles or excessive build. Apply at 4-6 mils unless the approved system specifies otherwise.

## CLEANING

Clean tools promptly with warm, soapy water, followed when necessary by a cleaner suitable for the coating material. Wash exposed skin thoroughly. Once cured, the coating can be removed only by mechanical means.

## RESTRICTIONS

- Substrate temperature must remain between 59°F and 86°F during application and curing.
- Maximum relative humidity during application and cure is 80%.
- Substrate moisture content must be below 4% at application.
- Do not apply where moisture transmission may occur through a porous substrate.
- Avoid exterior ground-level applications unless the complete system is approved for that exposure.
- Protect from moisture, condensation, and water during the first 24 hours of cure.
- Do not apply to wet areas, continuously submerged surfaces, or vehicular traffic areas unless specifically approved.
- Store tightly sealed and protect from freezing, excessive heat, moisture, and direct sunlight.

## HEALTH AND SAFETY

Avoid skin and eye contact and do not breathe vapors or spray mist. Wear safety glasses, chemical-resistant gloves, protective clothing, and suitable respiratory protection when ventilation is inadequate. Use only with adequate ventilation. For skin contact, wash with soap and water. For eye contact, rinse immediately with clean water for at least 15 minutes and obtain medical attention. If respiratory irritation occurs, move the affected person to fresh air. Consult the current Safety Data Sheet before handling or use.

## IMPORTANT NOTICE