



# POLYURETHANE 325

## PRODUCT DESCRIPTION AND USE

Polyurethane 325 is a three component, high solids aliphatic moisture urethane. This product offers a remarkable combination of performance properties not found in other polymer coatings. Polyurethane 325 produces protective films which are hard, flexible and very impact resistant. These coatings feature extreme abrasion and scratch resistance, easy soil release and excellent resistance to a broad range of chemicals. For exterior applications, a UV stabilizer package is incorporated to insure long term chalk resistance and gloss retention.

Polyurethane 325 has been designed as a high performance top coat in various protective coating and seamless flooring applications. It provides maximum cleanability and stain resistance when used as a finish coat in color chip flooring or epoxy-quartz flooring. This coating is ideally suited for clean-room floors, automotive repair facilities, aircraft hangars and other high wear areas requiring resistance to fuels and chemicals.

### **Chemical Composition**

Moisture cured aliphatic polyisocyanate.

### **Colors**

16 standard colors available, plus clear.

### **Limitations**

- Do not use on unprimed substrate.
- Do not apply when relative humidity is above 85%
- Do not apply when temperature is within 5 degrees of the dew point
- If coating is applied heavier than 8 mills wet curing bubbles will be trapped in the film
- Inconsistent film thickness can result in changes in gloss.

## TECHNICAL DATA

### **Physical Properties**

Mixing Ratio, .....	1.5 gallon kit and 3 gallon kit
Solids Content, by Weight (Pigmented) .....	95.5%
Solids Content, by Volume (Pigmented) .....	93.0%
Solids Content, by Weight (Clear) .....	92.0%
Solids Content, by Volume (Clear) .....	90.0%
VOC, (Pigmented) .....	100 grams/liter
Viscosity, cps (77 degrees) .....	800 averages
Pot Life (77 degrees, 1 quart mass) .....	3 hours
Pot Life (95 degrees, 1 quart mass) .....	2 hour

Pot Life is reduced by increasing temperature and/or mass

### **WARRANTY INFORMATION**

Arizona Polymer Flooring guarantees that this product is free from manufacturing defects and complies with our published specifications. In the event that the buyer proves that the goods received do not conform to these specifications or were defectively manufactured, the buyer's remedies shall be limited to either the return of the goods and repayment of the purchase price or replacement of the defective material at the option of the seller. ARIZONA POLYMER FLOORING MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, AND ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED. Arizona Polymer Flooring shall not be liable for damages caused by application of its products over concrete with excessive moisture vapor transmission or alkalinity. Arizona Polymer Flooring shall not be liable for any injury incurred in a slip and fall accident. Manufacturer or seller shall not be liable for prospective profits or consequential damages resulting from the use of this product.

### **HIGH PERFORMANCE CONCRETE COATING SYSTEM**

**TECHNICAL DATA (Cont'd.)**

**Dry Times (77 degrees)**

- Dry to Touch .....6-8 hours
  - Recoat .....10-12 hours
  - Light Traffic .....24 hours
  - Full Cure ..... 7 days
- Higher temperatures will shorten cure time and lower temperatures will lengthen cure time.

**Performance Properties**

- Gloss (60 degrees) .....50-60
- Coefficient of friction .....70
- Hardness (Sward)..... 30
- Tabor Abrasion (1000 gm. load 1000 cycles, CS 17 wheel) .....18 mg. loss
- Flexibility (ASTM D-222).....passes 1/8 inch
- Impact Resistance (ASTM D-2794).....passes 160 inch-pound direct and reverse

**CHEMICAL AND STAIN RESISTANCE (ASTM D-1308 24 HOUR IMMERSION)**

- Urine ..... no effect
- Blood..... no effect
- Whiskey ..... no effect
- Black Ink ..... no effect
- Brake Fluid..... no effect
- Gasoline..... no effect
- Skydrol B-4 ..... no effect
- Hydraulic Fluid #83282 ..... no effect
- Mineral Spirits ..... no effect
- Xylene ..... no effect
- MEK .....film softened
- 50% Sodium Hydroxide ..... no effect
- 25% Hydrochloric Acid ..... no effect
- 25% Sulphuric Acid ..... no effect
- 25% Acetic Acid..... no effect
- 25% Nitric Acid .....film blistered

**GENERAL INFORMATION**

**Moisture Vapor Emissions Precautions**

All interior concrete floors not poured over an effective moisture vapor retarder are subject to possible moisture vapor transmission that may lead to blistering and failure of the coating system. It is the coating applicator's responsibility to conduct calcium chloride and relative humidity probe testing to determine if excessive levels of vapor emissions are present before applying any coatings. APF can supply moisture remediation products. Consult our technical service department. Arizona Polymer Flooring and its sales agents will not be responsible for coating failures due to undetected moisture vapor emissions.

**Surface Preparation**

Polyurethane 325 is intended to be applied over primed or previously coated surfaces. Do not apply directly to concrete. Surface must be absolutely clean, dry and free from all dirt, wax, oil, chalk, incompatible paint or detergent film. Fully cured, previously coated surfaces must be cleaned and sanded lightly with 80-100 grit sandpaper or otherwise mechanically abraded before recoating. If multiple coats of Polyurethane 325 are applied, apply additional coats within 24 hours.

**Mixing Instructions**

Mix only that amount of material that can be used in a 3 hour period at 77°F. Mix Part A and Part B together using a low speed drill, and then slowly add part C while mixing. Once all component are combined mix for a full two minutes.

**Application Recommendations**

Polyurethane 325 may be applied by brush and roller. Apply at 350-400 sq. ft. per gallon with ¼" or 3/8" nap roller as a finish coat over primed concrete. It is very important to achieve a uniform application rate, Heavier films will be glossier, thinner applications will be flatter.

**Handling Precautions**

Material is combustible. Extinguish all flames, pilot lights and electric motors until all vapors are gone and the coating is hard. The vapor is harmful. Use only with adequate ventilation/or appropriate cartridge-type respirator. Avoid contact with skin; wear protective gloves. Read Material Safety Data Sheet before using.

**Slip and Fall Precautions**

OSHA and the American Disabilities Act (ADA) have now set enforceable standards for slip-resistance on pedestrian surfaces. The current coefficient of friction required by ADA is .6 on level surfaces and .8 on ramps. Arizona Polymer Flooring recommends the use of angular slip-resistant aggregate in all coatings or flooring systems that may be exposed to wet, oily or greasy conditions. It is the contractor and end users' responsibility to provide a flooring system that meets current safety standards. Arizona Polymer Flooring or its sales agents will not be responsible for injury incurred in a slip and fall accident.