

# TECHNICAL DATA SHEET

# POLYCOAT AQUASEAL® 5000

Single Component, Bitumen Modified Waterproofing Membrane Product Approved by City of Los Angeles RR#25935

**Product Description** 

Polycoat-Aquaseal® 5000 is a single component, liquid applied, bitumen modified, coal tar free, moisture cured polyurethane waterproofing membrane. The standard Polycoat-Aquaseal® 5000 may be applied to both fully cured (28 days for poured in place and 10 days after grouting for block). Polycoat-Aquaseal® 5000GC may be applied to Green Concrete. for Green Concrete, GC Additive must be added to Polycoat-Aquaseal® 5000 at a ratio of ½ pint GC Additive (256 ml) to 5 gallons (18.9 liters) of Polycoat-Aquaseal® 5000. Thoroughly mix with a variable speed drill and mixing paddle at slow speed.

It is available in four application versions. For 28-day cured concrete Horizontal (H) and Vertical (V) grade versions should be used. For Green Concrete (GC) Horizontal (GCH) and Vertical (GCV) grade versions are used. Polycoat-Aquaseal® 5000 has VOC levels equal to or less than 100 grams per liter. Make sure to use the correct grade of product which complies with VOC regulations/requirements applicable as per federal, state, statutory, counties, cities and local bodies at the place of installation.

### Color

Black

### Coverage

The approximate coverage is 2 gallons/100 per sqft (0.41l/sqft) or 100 sqft/gallon which results in a dry film thickness of 28 mils (355 microns). Coverage rate will depend on surface roughness and porosity.

## **Surface Preparation**

Refer to General Guidelines for complete information.

### Joints, Cracks and Flashing:

Apply a stripe coat of Polycoat-Aquaseal® 5000 over all cracks up to 1/16" (1.58 mm) width. All cracks over 1/16" (1.58 mm) width must be caulked with a polyurethane sealant.

All metal flashings must be primed with manufacturer's recommended primer.

### **FEATURES**

- Economical
- » User Friendly
- » Labor Saving
- » Resistant to Bacteria
- » Meets the Criteria of ASTM C-836 and E-96

## **TYPICAL USES**

- > Bridges
- » Between Slabs
- » Tunnels

- Foundation Walls
- » Planters
- Shower Pans
- » Basements

### **PACKAGING**

**5-Gallon** 5 gallon (18.9 liter) pail

55-Gallon 55 gallon drum, net fill 50 gallons (189

liters)

Mixing

Before application, Polycoat-Aquaseal® 5000 should be thoroughly mixed using a mechanical mixer at slow speed to ensure a homogeneous material. Take care not to allow entrapment of air into the material. Do not mix in an up and down motion.

#### TECHNICAL DATA (BASED ON DRAW DOWN FILM) POLYCOAT-AQUASEAL® 5000 PROPERTIES 5000V 5000GCV 5000H 5000GCH **HORIZONTAL VERTICAL HORIZONTAL VERTICAL** Hardness, ASTM D-2240 45 ± 5 Shore A 50 ± 5 Shore A $45 \pm 5$ Shore A 50 ± 5 Shore A Tear Resistance, Die C, ASTM D-624 70 ± 20 pli 100 ± 20 pli $70 \pm 20 \text{ pli}$ $100 \pm 20 \text{ pli}$ $9.3 \pm 2.6 \text{ kN/m}$ $13.3 \pm 2 \text{ kN/m}$ $9.3 \pm 2.6 \text{ kN/m}$ 13.3 ± 2 kN/m Tensile Strength, ASTM D-412 $450 \pm 50 \text{ psi}$ $500 \pm 50 \text{ psi}$ $450 \pm 50 \text{ psi}$ $500 \pm 50 \text{ psi}$ $3.1 \pm 0.3 \text{ MPa}$ $3.4 \pm 0.3 \text{ MPa}$ $3.1 \pm 0.3 \text{ MPa}$ $3.4 \pm 0.3 \text{ MPa}$ Ultimate Elongation, ASTM D-412 500 ± 50% 500 ± 50% 450 ± 50% 450 ± 50% 1.20 ± 0.3 1.28 ± 0.1 **Specific Gravity** $1.28 \pm 0.1$ $1.20 \pm 0.1$ Total Solids by Weight, ASTM D-2369 91 ± 3% $95 \pm 3\%$ $91 \pm 3\%$ $95 \pm 3\%$ Total Solids by Volume, ASTM D-2697 94 ± 3% $89 \pm 3\%$ 94 ± 3% $89 \pm 3\%$ Viscosity at 80°F (27°C) 5000 ± 2000 cps $40.000 \pm 20.000$ cps 5000 ± 2000 cps 40.000 ± 2000 cps 0.83 lb/gal, 0.83 lb/gal, Volatile Organic Compounds, ASTM D-2369-81 0.83 lb/gal, 0.83 lb/gal, 100 gm/liter 100 gm/liter 100 gm/liter 100 gm/liter -25°F to 200°F -25°F to 200°F -25°F to 200°F -25°F to 200°F Service Temperature

-31.7°C to 65°C

-31.7°C to 65°C

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### ----Application

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Polycoat-Aguaseal® 5000 may be applied with a brush, squeegee, trowel, roller or airless sprayer. Over smooth surfaces, such as poured-in-place concrete, apply Polycoat-Aquaseal® 5000 evenly in two 30 mil coats. Polycoat-Aquaseal® 5000WC-H (Water Catalyzed) can be applied at any thickness.

### **Membrane Protection**

As soon as possible after completion of a successful water test or visual inspection and/or repairs, cover membrane with approved protection board or geotextile drainage composite. All horizontal and vertical membrane must be protected.

### Curing

At 75°F (24°C) and 50% relative humidity, allow each coat of Polycoat-Aquaseal® 5000 Vertical, Horizontal and Green Concrete to cure 16 hours minimum.

Cure time will vary depending on temperature and humidity. If more than 48 hours pass between coats the surface must be re-primed.

Polycoat-Aguaseal® 5000 is very sensitive to heat and moisture. Higher temperatures and/or high humidity will accelerate the cure time. Use caution in thickness of application. Limit single coat thickness to 30-40 wet mils (760-1016 microns).

### Cleanup

Equipment should be cleaned with an environmentally safe solvent, as permitted under local regulations, immediately after use.

### Storage

Polycoat-Aquaseal® 5000 has a shelf life of one year from date of manufacture in original, factory-sealed containers when stored indoors at a temperature between 60-95°F (15-35°C).

### Limitations

The following conditions must not be coated with Polycoat Products deck coating systems or products: on grade slabs, split slabs with buried membrane, sandwich slabs with insulation, slabs over unvented metal pan, swimming pools, magnesite, lightweight concrete. Asphalt surfaces and asphalt overlays may be coated with Polycoat coating systems if first coated with the Polycoat-Aquaseal® 5000.

Surfaces must be dry, clean and area of foreign matter. Clear coating may turn opaque and cloudy due to moisture penetration, especially in exterior applications. Surface may be slippery when wet. Containers that have been opened must be used as soon as possible. Do not dilute under any circumstance.

With regard to coating asphalt surfaces, please contact Polycoat technical department.

May not be exposed to Ultraviolet rays.

### Warning

This product contains Aromatic Hydrocarbons, Isocyanates and Solvent.

Limited Warranty:: Please read all information in the General Guidelines, Technical Data Sheets, Guide Specifications and Safety Data Sheets (SDS) before applying material. These Products are for "Professional Use Only" and preferably applied by professionals who have prior experience with the Polycoat Products materials or have undergone training in application of Polycoat Products materials. Published technical data and instructions are subject to change without notice. Contact your local Polycoat Products representative or visit our website for current technical data, instructions, and project specific recommendations

Polycoat Products warrants its products to be free of manufacturing defects and that they will meet Polycoat Products current published physical properties. Polycoat Products warrants that its products, when properly installed by a state licensed waterproofing contractor according to Polycoat Products guide specifications and product data sheets over a sound, properly prepared substrate, will not allow water migration for a period of one (1) year. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. There are no other warranties by Polycoat Products of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. Polycoat Products shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. Polycoat Products shall not be responsible for use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. Polycoat Products reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

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