



# SLABLOC® 100

## TECHNICAL DATA SHEET

### Negative Side Moisture Vapor Barrier Epoxy

PRODUCT ID: SL-1001A, SL-1002B

#### PRODUCT DESCRIPTION

**SLABLOC® 100** is a clear 2-component, 100% solids, low odor, low viscosity epoxy that is specifically formulated as a moisture barrier primer to treat new and existing concrete substrates with high moisture emission rates and high relative humidity. **SLABLOC® 100** can be used as a single primer coat negative side moisture vapor barrier suitable for various types of concrete. The low viscosity formula not only promotes deeper concrete penetration for superior substrate adhesion but also generates a higher propensity for sealing and blocking moisture drive than standard epoxy flooring products. It is intended for use when high moisture levels are present in the concrete which may cause loss of bond of moisture sensitive flooring systems, including impervious and semi-pervious flooring, such as epoxy, polyaspartic, polyurethane, carpets, vinyl tiles and covering, tile, wood floors, etc. It meets ASTM F3010 Standard Practice for Two-Component Resin Based Membrane-Forming Moisture Mitigation Systems for Use under Resilient Floor Coverings. It is VOC Compliant in all states and provinces in North America.

#### TYPICAL USES

- Aircraft Hangar and Maintenance Floors
- Automotive Show Room and Repair Floors
- Commercial Bakery and Kitchen Floors
- Hospital and Health Care Facility Floors
- Laboratory and Research Floors
- Manufacturing and Warehouse Floors
- Pharmaceutical Floors
- Schools and Universities

#### BENEFITS

- Complies with USDA, FDA, Food Safety Modernization Act.
- Slip Resistance (ADA)

- LEED® and Green Seal® requirements.
- VOC and EPA Compliant all states and provinces in North America. Cures to an inert finish.
- Strong and Tough Floor.
- Excellent Chemical and Abrasion Resistance
- Designed for new floors and for resurfacing old floors
- When used with SLABLOC 50 primer, this product can hold back up to 20lbs+ of M.V.T. (Moisture Vapor Transmission)

#### LIMITATIONS

- This product is best suited for applications when the temperature is between 60°F to 90°F (16°C to 32°C). Do not apply when Relative Humidity exceeds 85%.
- Higher temperatures will result in shortened working time and drying time.

#### COLORS

- Clear Amber.

#### COVERAGE RATE PER GALLON

- Minimum of 100 sq. ft. (9.3 sq. m.) per gal (3.9 lt.) or a minimum of 16 mils (0.4 mm).

#### CONCRETE

Concrete must be structurally sound and free of curing agents, coatings, sealers, densifiers and other bond breakers.

#### New Concrete:

- Place concrete per ACI 302.2R Guide for Concrete Slabs that Receive Moisture-Sensitive Floor Materials.
- Water Cement Ratio 0.4 to 0.5, and an approximate 4,000 psi (28 MPa) strength level.
- Requiring a positive side moisture barrier in direct contact with the concrete meeting ASTM E1745 Standard Specification for Plastic Water Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs.
- The moisture barrier needs to be placed per ASTM E1643 Standard Practice for Selection, Design, Installation of Water Vapor Retarders Used in Contact with Earth or

Granular Fill Under Concrete Slabs, Class A 15 mils (0.38mm)

**Existing Concrete:**

If field tests or laboratory analysis reveals inferior concrete flooring slabs containing contaminants from previously applied unreacted silicate materials that will interfere with the bond, use SLABLOC® 50.

- Contaminants include, but are not limited to: organic hydrocarbon materials, calcium chlorides and aluminum stearates.
- Concrete flooring slab can lose their structural strength over time, caused by conditions beyond the control of the flooring manufacturer or the installation contractor.
- If the concrete substrate deteriorates sufficiently, it will no longer support the bond of the remediation floor system.

Such conditions are detailed in ACI 201.2R "Guide to Durable Concrete" published by the American Concrete Institute.

| <b>PHYSICAL PROPERTIES @ 77°F (25°C)<br/>7-DAY CURE (UNLESS OTHERWISE STATED)</b>             |                 |
|---|-----------------|
| VOC (Volatile Organic Compounds), (VOC Calculated Per ASTM D3960)                             | <5 gr./lt.      |
| Mix Ratio, by Volume  | 2:1             |
| Minimum Application Surface Temperature   | 50°F            |
| Working Time  | STANDARD        |
| Pot Life, 1 gallon (3.79 liters) Mass, Pot Life is Reduced by Increases in Mass & Temperature | 25 - 30 Minutes |
| Dry to Touch at 750F (240C)   | 7-8 Hours       |
| Recoat Time   | 12 to 14 Hours  |
| Shelf Life (shipped and stored) at 40°F to 100°F (4.4°C to 38°C)                              | 1 Year          |
| Packaging 3 gal. and 15 gal. (11.4 lt. and 56.8 lt.)  |                 |

**STANDARD**

|  |                                     |
|--|-------------------------------------|
| Compressive Strength, ASTM D695  | 10,000 psi                          |
| Tensile Strength, ASTM D683  | 7,500 psi                           |
| Tensile Elongation, ASTM D638  | 2.0%                                |
| Hardness (Shore D), ASTM D2240   | 70 – 80                             |
| Adhesion, ASTM D7234   | >400 psi                            |
| Water Absorption, D570   | <0.1%                               |
| Permeance, ASTM E96  | 0.017 (gr/ft2/hr/inHg 100 sqft/gal) |
| Moisture Vapor Emission Rate, F1869, Concrete Placed per ACI 302.2R, with Moisture Barrier ASTM E1745  | 25 Pounds                           |
| If Moisture Vapor Emission Rate test per ASTM F1869 is placed on concrete NOT placed per ACI 302.2R, consult a Desert Polymer Flooring representative. |                                     |
| Relative Humidity, F2170, Concrete Placed per ACI 302.2R, Moisture Barrier ASTM E1745  | 99%                                 |
| If Relative Humidity test per ASTM F2170 is placed in concrete NOT placed per ACI 302.2R consult a Desert Polymer Flooring representative.             |                                     |

Note: Although testing is critical, it is not a guarantee against future problems. This is especially true if there is not a positive side vapor barrier, or it is not functioning properly and/or concrete has contamination from oils, chemical spills, densifiers, excessive salts or other bond breakers.

**CHECK CONCRETE MOISTURE**

Concrete must be dry before application of this floor coating material. Concrete moisture tests are required, either ASTM F1869 (calcium chloride) or ASTM F2170 (in situ RH probe).

**CHECK TEMPERATURE & HUMIDITY**

Floor and material temperature must be at or above the published Technical Data Sheet. Dew Point must be 50F (30F) or more below the surface temperature. Do not apply if humidity is at or above 85%.

**SURFACE PREPARATION**

Surface preparation in accordance with: ICRI Guideline No. 310.2R Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repair. The pH of the concrete substrate should be at 9 or above. All bond-breaking material must be removed.

### APPLICATION EQUIPMENT

Depending on system applied: Variable low speed drill (450 rpm) with Jiffy® type impeller mixing paddle, disposable 3" brush for cutting in, 3/8-inch nap non-shedding phenolic core roller and rubber squeegee for spreading SLABLOC 100. Pour, squeegee and back-roll suggested.

### OPTIONAL ANTIMICROBIAL

The antimicrobial additive Silver® (sodium hydrogen zirconium phosphate) is a non-heavy metal biocide that can be added during the manufacturing process. (EPA Regulation Number 11631.2. and US Patent Number US 9,247,736 B2). The antimicrobial agent can be added to the topcoat only for an economical application or it can be added to each step of the application, primer, body coat and top coat, which is recommended for abusive environments.

### MIXING

For ease of mixing and placement, the temperature of the "A" and "B" components should be between 70°F to 80°F (20°C to 26°C). Pre-mix the "A" and "B" component for two full minutes to ensure all raw material and pigments are dispersed uniformly.

### APPLICATION

Pour all liquid material on to the properly prepared concrete substrate or next lift in ribbons and squeegee the material out evenly. Back-roll and cross roll the material. Check for desired wet film thickness with a WFT Gauge. If broadcasting aggregate, such as, 60 mesh or 90 mesh, broadcast a sprinkle (not full broadcast) into the wet material.

### SKID RESISTENCE

Skid-Resistance – Field (in situ) Wet Dynamic Coefficient of Friction (DCOF), ANSI A326.3.

### SHIPPING AND STORAGE

Ship and store material between 40°F to 90°F (4°C to 32°C). Store in a dry environment and out of direct sunlight.

### SHELF LIFE

Shelf life is 1 year from the date of manufacturer, provide the containers are unopened.

### CLEAN-UP

Clean-up mixing station, tools and equipment as required. Use acetone, a VOC exempt solvent, for cleaning up. Observe all legal, and health and safety precautions when handling or storing solvents and materials, particularly in confined spaces. Make sure the working areas are well ventilated at all times during placement and curing time.

### DISPOSAL

Dispose of empty packaging and other waste in accordance with federal, state, provinces and local regulations.

### MAINTENANCE

Inspect the installed floor by spot cleaning and spot repairing the damaged or cracked areas. To prolong life of the flooring system, a daily maintenance program is highly recommended to ensure the floor is safe for its intended purposes.

### TECHNICAL SUPPORT

For questions, contact a Desert Polymer Flooring representative.

### LIMITED WARRANTY

Desert Polymer Flooring warrants its products to be free of manufacturing defects and that they will meet Desert Polymer Flooring current published physical and chemical properties. Seller's sole responsibility shall be to replace that portion of the product which proves to be defective. There are no other warranties by Desert Polymer Flooring of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. Desert Polymer Flooring 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. Desert Polymer Flooring 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. Desert Polymer Flooring reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

#### **DISCLAIMER**

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the user's responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazard listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and Desert Polymer Flooring makes no claim that these tests or any other tests, accurately represent all environments.

**FOR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN. KEEP CONTAINERS TIGHTLY CLOSED.**

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