



SLABSEAL® 250

TECHNICAL DATA SHEET

Solvenated Acrylic Polyurethane Concrete and Masonry Sealer

PRODUCT ID: SS-2501B, SS-2502A, SS-2503A

PRODUCT DESCRIPTION

SLABSEAL® 250 is a solvenated acrylic polyurethane concrete and masonry sealer. It is a low viscosity, two-component polyurethane designed as a sealer and hybrid primer. It is a film-forming sealer that leaves the surface with a wet look. It is a non-yellowing UV stable sealer that is available in clear gloss and clear satin. It cures to an inert, tough, concrete sealer. Its re-coat window, different than all other polyurethanes, is limitless. It can be coated over itself indefinitely. Just make sure that the surface is clean and free of contaminants. It is the perfect sealer for decorative cementitious polymer overlays where a single component acrylic sealer is unacceptable. For added durability, a second sealer coat is recommended. SLABSEAL 250 can also be used as a hybrid primer, bonding tenaciously to minimally profiled, high gloss coated surfaces. Do not apply at less than 300 sq. ft. per mixed gallon. (27.9 sq. m.) It is VOC Compliant in all states and provinces in North America.

TYPICAL USES

- Interior and exterior concrete, cementitious overlayment and sealer
- Ideal for textured concrete, cementitious overlayments and masonry where recoating does not require abrasive surface preparation.
- Primer for use under polyurethanes, such as, **SLABSEAL 100 CRU Clear Gloss**
- Unlimited recoat window

BENEFITS

- Excellent adhesion to concrete unlike other polyurethanes
- Concrete adhesion promoter/primer for polyurethanes, such as, **SLABSEAL 100 CRU Clear Gloss**
- Slip Resistance (ADA)
- LEED® and Green Seal® requirements.

- VOC and EPA Compliant all states and provinces in North America. Cures to an inert finish.
- Longer lasting gloss retention, more durable and tougher than single component acrylic floor sealers
- As a sealer it is ideal for textured concrete and decorative cementitious overlayments, because its re-coat window is limitless

LIMITATIONS

- Polyurethane primer only, not for other coating and flooring chemistries. Example, not for epoxy.
- This product is best suited for applications in temperatures between 60°F to 90°F (16°C to 32°C). Do not apply when relative humidity exceeds 85%.
- **Desert Polymer Flooring SLABSEAL 250 Satin finish coat must be applied over SLABSEAL 250 Clear Gloss**
- Higher temperatures will result in shortened working time and drying time.

COLORS

- Available as a Clear Gloss and Clear Satin only.

COVERAGE RATE PER GALLON

- Clear Gloss Finish Coat: 300 to 350 sq. ft. (27.9 to 32.5 sq. m) WFT 4.6 to 5.3 mils (0.12 to 0.13 mm)
- Clear Satin Finish Coat: 400 to 450 sq. ft. (37.2 to 41.8 sq. m) WFT 4 to 3.6 mils (0.10 to 0.9 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 WBC**.

- 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.

| PHYSICAL PROPERTIES @ 77°F (25°C) 7 DAY CURE (UNLESS OTHERWISE STATED) | |
|---|-----------------|
| VOC (Volatile Organic Compounds), (VOC Calculated Per ASTM D3960) | <400 gr./lt. |
| Viscosity, Mixed | 250 cps |
| Solids Content, by Volume (Clear Gloss and Clear Satin) | 38.5% |
| Mix Density, Mixed | 9.2 lb./gal |
| Pot Life, 1 gallon (3.79 liters) Mass, Pot Life is Reduced by Increases in Mass & Temperature | 45 Minutes |
| Mix Ratio, by Volume | 2:1 |
| Minimum Application Surface Temperature | 50°F |
| Dry to Touch 50°F to 90°F (10°C to 32°F) | 2 to 6 Hours |
| Recoat Time 50°F to 90°F (10°C to 32°F) | 6 to 12 Hours |
| Light Traffic 50°F to 90°F (10°C to 32°F) | 24 Hour Minimum |
| Full Cure 50°F to 90°F (10°C to 32°F) | 4 to 7 Days |

| | |
|--|---------|
| Shelf Life (shipped and stored) at 40°F to 100°F (4.4°C to 38°C) | 1 Years |
| Packaging 1.5-gal, 15 gal. (5.7 lt, 56.8 lt.) | |

| MECHANICAL PROPERTIES @ 77°F (25°C) | |
|--|-----------------------------------|
| Surface Preparation ICRI Guideline No. 310.2R – Concrete Surface Profile (CSP 2 and above) Depending on System to be Installed and Condition of Concrete. | |
| Gloss Index, 60 Degrees Clear Gloss, ASTM D523 | 90 - 95 |
| Gloss Index, 60 Degrees Clear Stain, ASTM D523 | 40 - 70 |
| Adhesion, ASTM D7234, Concrete Failure | >400 psi |
| Tensile Strength, ASTM D882 | 5,000 psi |
| Tensile Elongation, ASTM D882 | 10% |
| Pencil Hardness, ASTM D3363 | 3H |
| Abrasion Resistance, ASTM D4060 500 cycles, Wheel No. CS17, 1000 gr. Load | 0.03 gr. |
| Flexibility, Bend Mandrel Coating Test, ASTM D522 | Pass 1/8 Inch |
| Microbial (fungi) Resistance, ASTM G21 (Without the Anti-Microbial Agent) | Pass #1 |
| Wet Dynamic Coefficient of Friction, ASNI 326.3 Depends on texture of system selected, ranging from smooth or aggressive. Measured with BOT 3000E equipment. | >0.45 (inclines) >0.42 (level) |
| Moisture Vapor Emission Rate, ASTM F1869* | 3 lbs. |
| Moisture Relative Humidity, ASTM F2170* | 80% rh |
| *If moisture or relative humidity exceeds the limits consult Desert Polymer Flooring. | |

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/TOOLS

Depending on system applied:

- Variable low speed drill (450 rpm) with Jiffy® type impeller mixing paddle
- A disposable 3-inch brush for cutting in
- A 1/2-inch nap non-shedding phenolic core roller
- A clean 5-gallon pail or roller pan

OPTIONAL ANTIMICROBIAL

The antimicrobial additive Silver® (sodium hydrogen zirconium phosphate) is a non-heavy metal biocide that can be added during the manufacturing process. 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 topcoat, which is recommended for abusive environments.

MIXING INSTRUCTIONS

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 to ensure all raw material is dispersed uniformly.

When using as a hybrid primer, be sure to thin material 25-50% with acetone after mixing parts A & B.

APPLICATION

After thoroughly mixing the product for 2 minutes at low speed, use the dip-and-roll method to apply evenly to the surface. Be sure to maintain a wet edge and/or stop at a terminating edge such as an expansion joint when doing large areas to reduce lap marks. Remember to back-roll and cross-roll material.

SKID RESISTENCE

If broadcasting slip-resistant resin sand such as 40-mesh or 60-mesh, sprinkle into the wet material. (NOT full broadcast.)

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.

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

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WARRANTY AND DISCLAIMER

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

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.