High-Build Pigmented Epoxy Floor Coating for Light and Moderate Duty Commercial and Industrial Use

PRODUCT DESCRIPTION
Shield 50™, is a 100% solids, non-shrink, two-component, straw or pigmented epoxy floor coating.

APPLICATIONS
On dry concrete surfaces as a pigmented base coat or clear top coat for foot and vehicular pneumatic tire traffic. Also used as a binder coat for quartz floor systems:
- Food Processing
- Pharmaceutical Plants
- Acid Stain Top Coat

ADVANTAGES
- Good Working Time
- Nearly No Odor
- No VOC’s – 100%Solids
- 100% Cross-linking
- Medium Cure Rate
- Cures down to 50°F (10°C)
- Excellent Strength Properties
- High Compressive Strength
- Excellent Impact Resistant
- DOT Non-Corrosive
- Easy to Place
- Used as Neat Coating or Textured Polymer Overlay

Typical Neat Coverage
Base Coat: 8-10Mils(160-200ft²/Gal)
Top Coat: 10 Mils (160ft²/Gal)

CURED RESIN PERFORMANCE

<table>
<thead>
<tr>
<th>Test Description</th>
<th>Test Method</th>
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</thead>
<tbody>
<tr>
<td>Compressive Strength Days – 14,200 PSI</td>
<td>ASTM D 6957</td>
</tr>
<tr>
<td>Tensile Strength, Min. 8,800 PSI</td>
<td>ASTM D 638</td>
</tr>
<tr>
<td>Elongation @ Break 5%</td>
<td>ASTM D 638</td>
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<tr>
<td>Flexural Strength 16,000 PSI</td>
<td>ASTM D 790</td>
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<tr>
<td>Flexural Modulus 400,000 PSI</td>
<td>ASTM D 790</td>
</tr>
<tr>
<td>Shore D Hardness 80</td>
<td>ASTM D 2240</td>
</tr>
<tr>
<td>Adhesion 400 PSI</td>
<td>ASTM D 4541</td>
</tr>
<tr>
<td>Impact Resistance Mil-D-3134 Passes Sec. 4.7.3 16 ft./lbs.</td>
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<tr>
<td>Taber Abrasion 89 mg/1000rev., cs17</td>
<td>ASTM D 4060</td>
</tr>
<tr>
<td>Water Resistance &lt;0.21%</td>
<td>ASTM D 570</td>
</tr>
<tr>
<td>MVT (Moisture Vapor Transmission) 96 0.10 Perm @ 20 Mils</td>
<td>ASTM E</td>
</tr>
<tr>
<td>Fungus &amp; Bacteria Resistance 52505 No Support of Growth Under TT-P-34</td>
<td>Mil-F-</td>
</tr>
<tr>
<td>Coefficient of Thermal Expansion Temperature Range -22°F(-22°C) / 86°F(30°C) 7 Days 18.0 X 10^-8 in/in./°F</td>
<td>ASTM D 696</td>
</tr>
</tbody>
</table>

PRODUCT DATA
- Weight per Gallon: 9.1 lbs/gl (mixed)
- Solids %: 100% (mixed)
- Viscosity: 500-750 cps (mixed)
- Flash Point: >205°F
- VOC EPA Method 24: <10 g/l

ORDER SPECIFICATIONS
- Shield50 1 gal EP-S50-1
- Shield50 3 gal EP-S50-3
- Shield50 5 gal EP-S50-5
- Shield50 15 gal EP-S50-15

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SURFACE PREPARATION
All substrate surfaces must have all loose and deterioration removed to a sound surface. Concrete and other substrates must be clean, sound, and free of dust, grease, waxes, coatings, curing compounds and all contaminants. Typical removal methods include dust-free abrasive blasting. Clean the substrate to the desired surface profile for the overlay system selected. Follow the CCI Surface Preparation Guide for best results.

TEST SUBSTRATE FOR CLEANNESS AND ADHESION
Before placement of the Polymer Overlay test the cleaned concrete substrate for soundness and cleanliness with a Tensile Pull Test ACI 503 R (min.200 psi) or Concrete Coatings Inc. Surface Shear Test. 100% concrete must fail to pass either test without bond line failure.

PRECONDITIONING POLYMER
When temperatures drop polymers typically thicken and it becomes harder to flow or to spread the product. When the temperatures are warmer they typically become thinner. To improve the flow-ability maintain product temperature before mixing at about 20°C (70°F). When the substrate temperature is 15°C (60°F) or lower preheat each epoxy component to 90°F before mixing. Caution the potlife will be reduced by about 50%.

CUSTOMER SATISFACTION
Apply a test area to ensure that the application meets the customer’s expectations.

Keep containers tightly closed

MIXING
Pre-mix Component "A", (when pigmented) then pour Component "B" into "A" and mix for 90 seconds (until one even colors develops) with a low speed paddle attached to a drill (400-600rpm). 5-10% Xylene may be added to the completed mix. In some cases this helps to minimize bubbling caused from warmer conditions or accelerated cure. Mix slowly and thoroughly. The mixed product is ready for immediate placement.

COVERAGE
Product coverage is 100 – 200 sq ft per gallon depended upon the existing substrate surface profile and thickness of the designed system.

APPLICATION METHODS
Apply by squeegee in left to right motions, and back roll with a short nap roller at 90° angles to squeegee lines. Do not roll excessively, only enough to smooth material.

LIMITATIONS
- Substrate temperature must be 3°C (5°F) above measured dew point temperature.
- Minimum application temperature is 10°C (50°F).
- DO NOT APPLY on WET OR DAMP SUBSTRATE.
- Aggregate must be dry when used.
- Pre-condition polymer as needed.

MAINTENANCE
For maximum life expectancy, routinely sweep and wash floors with appropriate cleaners and detergents. All chemicals or abrasive grit should be removed as soon as possible.

CAUTION
Component “A”- Irritant
Contains epoxy resins. Prolonged contact with skin may cause irritation. Avoid contact with eyes.

Component “B” - Corrosive
Contains aliphatic/cycloaliphatic amines. Contact with skin may cause severe burns. Avoid eye contact. Product is a strong sensitizer

Important Information
Use of safety goggles, chemical-resistant gloves, adequate ventilation and NIOSH/MSHA approved respirator is recommended.

CLEAN UP
In case of spills wear suitable protective equipment, contain spill, collect with absorbent material, place in suitable container, Ventilate area. Avoid contact. Dispose according to applicable local, state, and federal regulations.

FIRST AID
In case of skin contact, wash thoroughly with soap and water. For eye contact, flush immediately with plenty of water for at least 15 minutes. For respiratory problems, remove person to fresh air. Contact Physician Immediately. Wash clothing before re-use.

Consult Material Safety Data Sheet for More Information

FOR INDUSTRIAL USE ONLY
KEEP OUT OF REACH OF CHILDREN

"Concrete Coatings Inc. warrants its products to be free of manufacturing defects and that they will meet Concrete Coatings Inc. current published physical properties when applied in accordance with Concrete Coatings Inc. written directions and tested in accordance with ACI, ASTM and Concrete Coatings Inc. Standards. There are no other warranties by Concrete Coatings Inc. of any nature whatsoever, expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. Concrete Coatings Inc. 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, from any other cause whatsoever. Concrete Coatings Inc. will not be responsible for use of this product in a manner to infringe on any patent held by others."

For the Location of Your Nearest Concrete Coatings Inc. Representative
CALL NATIONWIDE TOLL-FREE 1-800-443-2871

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