EPO-FLEX® Industrial Floor

**General Polymers EPO-FLEX INDUSTRIAL FLOOR System** combines EPO-FLEX with hard aggregate to provide a tough traffic bearing system. Flexibility is achieved without the use of plasticizers or other additives which can separate or migrate as the system ages. This means that the product remains flexible and continues to function for many years. Fiberglass scrim may be incorporated into the system to add tensile strength. EPO-FLEX Industrial Floor provides waterproofing with the ability to bridge hairline cracks up to 1/16”. The use of a hard aggregate provides abrasion, impact resistance and skid inhibition properties. Various topcoats can be specified to provide protection against water, oils, chemicals and ultraviolet light.

### Advantages
- Abrasion and impact resistant
- Color options
- Slip resistant
- Waterproof
- Bridges hairline cracks
- Chemical and stain resistant
- Fiberglass scrim optional for maximum tensile strength
- Does not require priming in many cases

### Uses
- Industrial floor
- Warehouses

### Typical Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardness, Shore D</td>
<td>0/40</td>
</tr>
<tr>
<td>ASTM D 2240</td>
<td></td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>1,700 psi</td>
</tr>
<tr>
<td>ASTM D 412</td>
<td></td>
</tr>
<tr>
<td>Elongation</td>
<td>80%</td>
</tr>
<tr>
<td>ASTM D 412</td>
<td></td>
</tr>
<tr>
<td>Adhesion</td>
<td>300 psi</td>
</tr>
<tr>
<td>ACI 503R</td>
<td></td>
</tr>
<tr>
<td>Flammability</td>
<td>Self-Extinguishing</td>
</tr>
<tr>
<td>ACI 503R</td>
<td>over concrete</td>
</tr>
<tr>
<td>Thermal Cycling</td>
<td>No Cracking</td>
</tr>
<tr>
<td>ASTM C 884</td>
<td></td>
</tr>
<tr>
<td>(24 hours, -21°C to 25°C)</td>
<td></td>
</tr>
</tbody>
</table>

110-120 mils

![Diagram of EPO-FLEX Industrial Floor system layers]

- Grout and Topcoat
- Broadcast
- Epo-Flex (30 mils) Wearcourse
- Epo-Flex (30 mils) Neat Membrane
- Primer
Installation
General Polymers materials shall only be installed by approved contractors. The following information is to be used as a guideline for the installation of the EPO-FLEX Industrial Floor System. Contact the Technical Service Department for assistance prior to application.

Surface Preparation — General
General Polymers systems can be applied to a variety of substrates, if the substrate is properly prepared. Preparation of surfaces other than concrete will depend on the type of substrate, such as wood, concrete block, quarry tile, etc. Should there be any questions regarding a specific substrate or condition, please contact the Technical Service Department prior to starting the project. Refer to Surface Preparation (Form G-1).

Surface Preparation — Concrete
Concrete surfaces shall be abrasive blasted to remove all surface contaminants and laitance. The prepared concrete shall have a surface profile depending upon system selected. Refer to Form G-1.

Temperature
Throughout the application process, substrate temperature should be 50ºF – 90ºF. Substrate temperature must be at least 5ºF above the dew point. Applications on concrete substrate should occur while temperature is falling to lessen offgassing. The material should not be applied in direct sunlight, if possible. Protect material from freezing prior to installation.

Application Information — Surface Prep Profile CSP 3-5

<table>
<thead>
<tr>
<th>VOC MIXED</th>
<th>MATERIAL</th>
<th>MIX RATIO</th>
<th>THEORETICAL COVERAGE PER COAT CONCRETE</th>
<th>PACKAGING</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;50 g/L</td>
<td>Primer</td>
<td>3579</td>
<td>2:1</td>
<td>250 sq. ft./gal</td>
</tr>
<tr>
<td>&lt;100 g/L</td>
<td>First Base Coat</td>
<td>3555</td>
<td>1:1</td>
<td>60 sq. ft./gal</td>
</tr>
<tr>
<td>&lt;100 g/L</td>
<td>Wearcourse</td>
<td>3555 5310-8 Dry Silica 20-40 mesh or other Hard Aggregate</td>
<td>1:1</td>
<td>60 sq. ft./gal 0.4 lbs. / sq. ft.</td>
</tr>
<tr>
<td>&lt;100 g/L</td>
<td>Grout Coat</td>
<td>3746</td>
<td>2:1</td>
<td>80 sq. ft./gal</td>
</tr>
<tr>
<td>&lt;100 g/L</td>
<td>Topcoat</td>
<td>3746</td>
<td>2:1</td>
<td>100-150 sq. ft./gal</td>
</tr>
</tbody>
</table>

For additional topcoat options consult the General Polymers Topcoat Selection Guide, or contact your Sherwin Williams representative.
**Primer**

**Mixing and Application**

1. Premix 3579A (resin) using a low speed drill and Jiffy blade. Mix for one minute and until uniform, exercising caution not to introduce air into the material.

2. Add 2 parts 3579A (resin) to 1 part 3579B (hardener) by volume. Mix with low speed drill and Jiffy blade for three minutes and until uniform. To insure proper system cure and performance, strictly follow mix ratio recommendations.

3. 3579 may be applied via spray, roller or brush. Apply 5-8 mils, evenly, with no puddles. Coverage will vary depending upon porosity of the substrate and surface texture.

4. Wait until primer is tacky (usually 1 hour minimum), before applying the slurry. If primer is not going to be topped within open time, broadcast silica sand into resin lightly but uniformly and allow to cure overnight.

**First Base Coat**

**Mixing and Application**

1. Premix 3555A (resin) using a low speed drill and Jiffy blade. Mix for one minute and until uniform, exercising caution not to whip air into the material.

2. Add 1 part 3555A (resin) to 1 part 3555B (hardener) by volume. Mix with low speed drill and Jiffy blade for three minutes and until uniform.

3. Immediately pour the mixed material onto the substrate and pull out using a 1/4" or 1/8" v-notched squeegee to yield 30 mils WFT and cross roll with a 3/8" nap roller. Readings must be taken continuously during application with a wet mil gauge to verify material is being applied at the proper thickness. Allow to cure overnight at 73ºF surface temperature. Material cures slower at lower temperatures.

4. After base coat is cured, check for surface blush. Remove any blush with detergent wash prior to recoat.

**Wearcourse**

**Mixing and Application**

1. Premix 3555A (resin) using a low speed drill and Jiffy blade. Mix for one minute and until uniform, exercising caution not to whip air into the material.

2. Add 1 part 3555A (resin) to 1 part 3555B (hardener) by volume. Mix with low speed drill and Jiffy blade for three minutes and until uniform.

3. Immediately pour the mixed material onto the substrate and pull out using a 1/4" or 1/8" v-notched squeegee to yield 30 mils WFT and cross roll with a 3/8" nap roller. Readings must be taken continuously during application with a wet mil gauge to verify material is being applied at the proper thickness. Material cures slower at lower temperatures.

4. Broadcast 5310-8 Dry Silica Sand (20-40 mesh) or other Hard Aggregate to excess into wet material so no wet material is visible. Aggregate should be broadcast within one (1) hour of liquid application to ensure they are properly seated.

5. Allow to cure for 24 hours, sweep off excess aggregate with a clean, stiff bristled broom. Clean aggregate can be saved for future use. All imperfections such as high spots should be smoothed before the application of the seal coat.

**NOTE:** The floors finished appearance depends on the manner in which the aggregate has been applied. In grass seed like fashion, allow the aggregate to fall after being thrown upward and out. DO NOT THROW DOWNWARD AT A SHARP ANGLE USING FORCE.

**Grout Coat**

**Mixing and Application**

1. Premix 3746A (resin) using a low speed drill and Jiffy blade. Mix for one minute and until uniform, exercising caution not to introduce air into the material.

2. Add 2 parts 3746A (resin) to 1 part 3746B (hardener) by volume. Mix with low speed drill and Jiffy blade for three minutes and until uniform. To insure proper system cure and performance, strictly follow mix ratio recommendations.

3. Apply 3746 using a flat trowel or flat squeegee and backroll with a 1/4" nap roller at a spread rate of 100-150 sq. ft. per gallon, evenly, with no puddles making sure of uniform coverage. Take care not to puddle materials and insure even coverage.

4. Allow to cure 24 hours minimum before applying seal coat.

**Topcoat**

**Mixing and Application**

1. Premix 3746A (resin) using a low speed drill and Jiffy blade. Mix for one minute and until uniform, exercising caution not to introduce air into the material.

2. Add 2 parts 3746A (resin) to 1 part 3746B (hardener) by volume. Mix with low speed drill and Jiffy blade for three minutes and until uniform. To insure proper system cure and performance, strictly follow mix ratio recommendations.

3. Apply 3746 using a flat trowel or flat squeegee and backroll with a 1/4" nap roller at a spread rate of 100-150 sq. ft. per gallon, evenly, with no puddles making sure of uniform coverage. Take care not to puddle materials and insure even coverage.

4. Allow to cure 24 hours minimum before opening to traffic.

Epoxy materials will appear to be cured and “dry to touch” prior to full chemical cross linking. Allow epoxy to cure for 2-3 days prior to exposure to water or other chemicals for best performance.
Cleanup

Clean up mixing and application equipment immediately after use. Use toluene or xylene. Observe all fire and health precautions when handling or storing solvents.

Safety

Refer to the MSDS sheet before use. Federal, state, local and particular plant safety guidelines must be followed during the handling and installation and cure of these materials.

Safe and proper disposal of excess materials shall be done in accordance with applicable federal, state, and local codes.

Material Storage

Store materials in a temperature controlled environment (50ºF - 90ºF) (10ºC - 32ºC), and out of direct sunlight. Keep resins, hardeners, and solvents separated from each other and away from sources of ignition. Shelf life of material will vary, check individual product data sheet.

Maintenance

Occasional inspection of the installed material and spot repair can prolong system life. For specific information, contact the Technical Service Department.

Disclaimer

The information and recommendations set forth in this document are based upon tests conducted by or on behalf of The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product(s) offered at the time of publication. Published technical data and instructions are subject to change without notice.

Consult www.generalpolymers.com to obtain the most recent Product Data information and Application instructions.

Warranty

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