AquArmor™ MCS
High Build Hangar System

General Polymers AquArmor MCS High Build Hangar Flooring System is designed to provide an 1/8" thick, high gloss, easy to maintain floor finish in a hangar or industrial environment. The unique AquArmor technology offers a fast, environmentally friendly installation that is not susceptible to problems associated with moisture in the concrete. The high performance polyurethane finish coat is resistant to staining and chemical attack from airplane fluids such as jet fuel, acids, alkalies, grease, de-icing salts and Skydrol.

Advantages
- No moisture readings necessary
- Breathable
- Rapidly installed
- Seamless
- Easy to clean
- Good chemical resistance
- Can be applied to “green” concrete
- 100 times the permeability of standard epoxy floor systems
- Water clean up
- Gloss finish

Uses
- Aircraft hangars
- Warehouses
- Manufacturing flooring

Limitations
- Protect from freezing
- Must be installed at a minimum of 1/8"

Typical Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Binder Resin 3460</td>
<td>1,800-2,400 cps</td>
</tr>
<tr>
<td>Viscosity, mixed</td>
<td>2-3 hours</td>
</tr>
<tr>
<td>Pot Life</td>
<td>80</td>
</tr>
<tr>
<td>Hardness, @ 14 days Shore D</td>
<td>300 psi</td>
</tr>
<tr>
<td>ASTM D 2240</td>
<td></td>
</tr>
<tr>
<td>Adhesion</td>
<td>concrete failure</td>
</tr>
<tr>
<td>ACI 503R</td>
<td></td>
</tr>
<tr>
<td>Cure Time</td>
<td>12-16 hours</td>
</tr>
<tr>
<td>Dry to touch</td>
<td>12 hours</td>
</tr>
<tr>
<td>Recoat</td>
<td></td>
</tr>
<tr>
<td>Light Traffic</td>
<td>12 hours</td>
</tr>
<tr>
<td>Resistance to Elevated Temperatures</td>
<td>No slip or flow at required temperature of 158°F</td>
</tr>
<tr>
<td>MIL-D-3134J</td>
<td></td>
</tr>
<tr>
<td>Impact Resistance</td>
<td>Greater than 160 in./lbs (160 lb. load)</td>
</tr>
<tr>
<td>ASTM D 4226</td>
<td>28 days</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>1,200 psi</td>
</tr>
<tr>
<td>ASTM C 307</td>
<td>1,200 psi</td>
</tr>
<tr>
<td>Flexural Strength</td>
<td></td>
</tr>
<tr>
<td>ASTM C 580</td>
<td>5,800 psi</td>
</tr>
<tr>
<td>Compressive Strength</td>
<td></td>
</tr>
<tr>
<td>ASTM C 579</td>
<td></td>
</tr>
<tr>
<td>Permeability</td>
<td>$1.4 \times 10^{-4}$</td>
</tr>
<tr>
<td>ASTM E 96-95</td>
<td>perm. cm</td>
</tr>
</tbody>
</table>
Installation

The following information is to be used as a guideline for the installation of the AquArmor MOISTURE CONTROL 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 of CSP 4-6. Refer to Form G-1.

After initial preparation has occurred, inspect the concrete for bug holes, voids, fins and other imperfections. Protrusions shall be ground smooth while voids shall be filled with a system compatible filler. For recommendations, consult the Technical Service Department.

Temperature

Throughout the application process, substrate temperature should be 50°F - 90°F (10°C - 32°C). Substrate temperature must be at least 5°F 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.

Application Information — Surface Prep Profile CSP 4-6

<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>Optional for outgassing Primer</td>
<td>3460 plus 20% potable water</td>
<td>1:4</td>
<td>250 sq. ft./gal</td>
</tr>
<tr>
<td>&lt;50 g/L</td>
<td>Slurry</td>
<td>3460</td>
<td>1:4</td>
<td>80-90 sq. ft. per 2.5 gal 30 lbs. per 2.5 gals @ 1/8”</td>
</tr>
<tr>
<td>0</td>
<td>Broadcast</td>
<td>5310 - #7</td>
<td>to excess</td>
<td>0.7 lbs. per sq. ft.</td>
</tr>
<tr>
<td>&lt;50 g/L</td>
<td>Grout</td>
<td>3460</td>
<td>1:4</td>
<td>100 sq. ft./gal</td>
</tr>
<tr>
<td>&lt;50 g/L</td>
<td>Topcoat</td>
<td>4410/4411</td>
<td>4:1</td>
<td>400-500 sq. ft./gal</td>
</tr>
</tbody>
</table>
Primer
Mixing and Application

1. Premix 3460B (hardener) 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 1 part 3460A (resin) to 4 parts 3460B (hardener) plus 20% potable water. Mix with low speed drill and Jiffy blade until uniform. To insure proper system cure and performance, strictly follow mix ratio recommendations.

3. 3460 may be applied via spray, roller or brush. Apply at 250 square feet per gallon to yield 6-8 mils WFT evenly with no puddles making sure of uniform coverage. Coverage will vary depending upon porosity of the substrate and surface texture.

4. Two applications of 3460 Primer may be necessary to adequately seal and fill the surface imperfections and protect against outgassing. This can be accomplished by applying two tight, flat squeegee coats (pushing not pulling) in opposite directions at 15-20 minutes apart.

Slurry Coat - Broadcast to 1/8"
Mixing and Application

1. Premix 3460B (hardener) 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 quarts 3460A (resin) to 2 gallons 3460B (hardener) by volume. Mix with low speed drill and Jiffy blade until uniform. Slowly add up to 30 lbs 5150 AquArmor S Aggregate per 2.5 gallons of mixed material. Mix with low speed drill and Jiffy blade and until uniform and no lumps remain.

3. Immediately pour the mixed material onto the substrate and pull out using a 1/4" v-notched trowel or 1/4" red rubber squeegee.

4. Allow material to self-level, the surface should be lightly backrolled with a looped roller to help smooth. Use a spiny roller to aid in the release of air.

5. System must be broadcast with silica sand (5310) to build to 1/8" thickness.

6. Allow to cure 18 hours minimum before applying grout coat. (Cure times vary depending on environmental conditions).

Grout Coat
Mixing and Application

1. Premix 3460 Part B using a low speed drill and Jiffy blade. Mix until uniform, exercising caution not to introduce air into the material.

2. Add 1 part 3460A (resin) to 4 parts 3460B (hardener) by volume. Mix with low speed drill and Jiffy blade until uniform. To insure proper system cure and performance, strictly follow mix ratio recommendations. Take care not to puddle materials and insure even coverage.

3. Apply 3460 using a tight squeegee coat and backroll with a high quality 3/16" nap roller. Apply at a spread rate of 100 sq. ft. per gallon evenly with no puddles making sure of uniform coverage. Two coats may be required over broadcast AquArmor Slurry system.

4. Allow to cure 12 hours minimum before applying topcoat. (Cure times vary depending on environmental conditions).

Topcoat
Mixing and Application

1. Premix 4410/4411A (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 4 parts 4410/4411A (resin) to 1 part 4410/4411B (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 4410/4411 using a 1/4" nap roller at a spread rate of 400-500 square feet 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 light foot traffic.

5. To reduce or eliminate non skid texture, grind or sand prior to application of topcoat.

Cleanup

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

Safety

Refer to the MSDS sheet before use. All applicable 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) and out of direct sunlight.

Keep resins, hardeners, and solvents separated from each other and away from sources of ignition.

Maintenance

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

Disclaimer

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

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