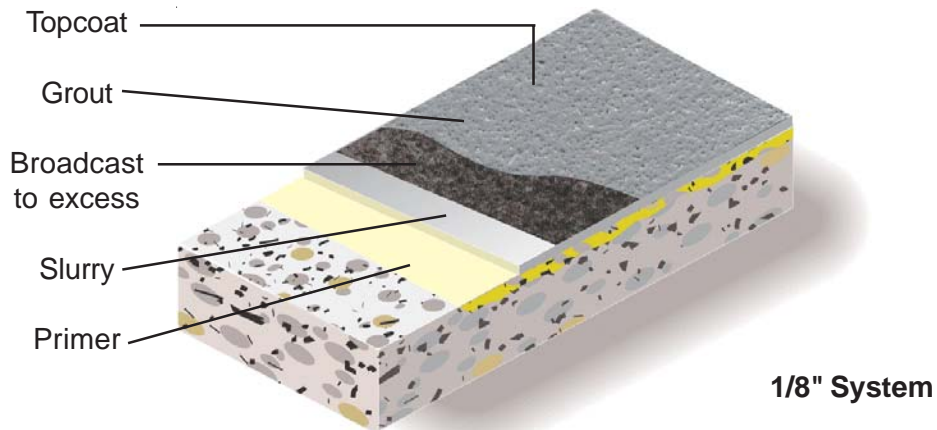




# AquArmor™ MCS High Build Hangar System

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, alkalis, grease, de-icing salts and Skydrol.



### Advantages

- No moisture readings necessary
- Breathable
- Rapidly installed
- VOC compliant, Low odor
- 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

<b>Binder Resin 3460</b>		
VOC (Volatile Organic Content)		Compliant
EPA Method 24		Compliant
SCAQMD Method 304		Compliant
Mix Ratio A:B		1:4
Viscosity, mixed		1,800-2,400 cps
Pot Life		2-3 hours
Hardness, @ 14 days Shore D		80
ASTM D 2240		
Adhesion		300 psi
ACI 503R		concrete failure
<b>System</b>		
Cure Time	Dry to touch	12-16 hours
	Recoat	12 hours
	Light Traffic	12 hours
Resistance to	No slip or flow at required	
Elevated Temperatures	temperature of 158°F	
MIL-D-3134J		
Impact Resistance	Greater than 160 in./lbs	
ASTM D 4226	(160 lb. load)	
Tensile Strength		28 days
ASTM C 307		1,200 psi
Flexural Strength		1,200 psi
ASTM C 580		
Compressive Strength		5,800 psi
ASTM C 579		
Permeability		1.4 x 10 <sup>-7</sup>
ASTM E 96-95		perm. cm

**Installation**

The following information is to be used as a guideline for the installation of the **AAquArmor** MCS High Build Hangar Flooring 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. 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 @ 1/8"**

Material	Mix Ratio	Theoretical Coverage Per Coat	Packaging
Optional for outgassing Primer 3460 plus 20% with potable water	1:4	250 sq. ft. / gal	1.25 - 5 gals
Slurry 3460 5150 Aggregate	1:4	80-90 sq ft per 2.5 gal 30 lbs per 2.5 gal @ 1/8"	1.25 gals 30 lb bags
Broadcast 5310-#7	To excess	0.7 lbs per sq ft	50 lb bags
Grout 3460	1:4	100 sq. ft. / gal	1.25 - 5 gals
Topcoat 4408	3:1	400-500 sq. ft. / gal	4 - 20 gals

## **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 -**

### ***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).

**NOTE: Temperatures and environmental conditions may impact levelling. It is acceptable to reduce the aggregate loading up to 10% of the 5150 AquArmor S aggregate to improve levelling. Excess air movement across the surface should be avoided.**

## **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 8-10 mils 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 4408A (resin) using a low speed drill and Jiffy blade. Mix for one minute and until uniform, exercising caution not to whip air into the materials.
2. Add 3 parts 4408A (resin) to 1 part 4408B (hardener), mix with low speed drill and Jiffy blade for three minutes and until uniform. Apply 4408 using a 1/4" nap roller at a spread rate of 400-500 square foot per gallon evenly with no puddles making sure of uniform coverage. **NOTE:** 4408 can be reduced with up to 5% potable water to assist flow when required due to temperature or other environmental conditions.
3. Allow to cure 18-24 hours before applying optional second coat. If beyond 24 hours abrade the first coat with 100 grit screen/paper.
4. Allow 24 hours minimum before opening to wheeled traffic and water exposure.
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.

Consult [www.generalpolymers.com](http://www.generalpolymers.com) to obtain the most recent Product Data information and Application instructions.

## 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 (50°F - 90°F) and out of direct sunlight.

Keep resins, hardeners, and solvents separated from each other and away from sources of ignition. One year shelf life is expected for products stored between 50°F - 90°F.

## Maintenance

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

## Shipping

- Destinations East of the Rocky Mountains are shipped F.O.B. Cincinnati, Ohio.
- Destinations West of the Rocky Mountains are shipped F.O.B. Victorville, California.

For specific information relating to international shipments, contact your local sales representative.

## 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.

## Warranty

The Sherwin-Williams Company warrants our products to be free of manufacturing defects in accord with applicable Sherwin-Williams quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by Sherwin-Williams, NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SHERWIN-WILLIAMS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.



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