

# SYSTEM BULLETIN



## CERAMIC CARPET™ #444 (3/16")

### Product Description

General Polymers CERAMIC CARPET #444 is a 3/16" system which incorporates decorative colored quartz aggregates with 100% solids epoxy resins and chemical resistant grout and seal coats to form a protective surfacing system which is aesthetically pleasing, durable and resistant to wear, staining and chemicals.

### Advantages

- Aesthetically pleasing appearance
- Limitless color options
- Durable, wear and slip resistant
- Chemical and stain resistant
- 100% solids, low odor
- -0- VOC (Volatile Organic Content)
- Available with an antimicrobial agent

### Uses

- Commercial kitchens (Areas where temperature will not exceed 170°F in service)
- Animal care and holding areas
- Clean rooms and pharmaceuticals
- Animal research and cage wash areas
- Locker and restrooms
- Packaging and storage areas

### System Specification

CERAMIC CARPET #444 FLOORING SYSTEM consists of 3579 Standard Primer / Binder as primer, 3561P Epoxy Resin Glaze as binder resin, 5350 Trafficote Filler, 5310 Dry Silica Sand (40-60 Mesh) for slurry, 5900F ESTES Colored Quartz Aggregate, and 3744 High Performance CR Epoxy as grout and seal coat.

### Typical Physical Properties

Color	Pre-Blended Standard Colors Custom Color Blends Available
Hardness, Shore D ASTM D 2240	75/65
Tensile Strength ASTM C 307	2,000 psi
Compressive Strength ASTM C 579	12,000 psi
Abrasion Resistance ASTM D 4060, CS-17 Wheel, 1,000 cycles	70-90 mgs lost
Flexural Strength ASTM C 580	4,000 psi
Adhesion ACI 503R	350 psi 100% concrete failure
Flammability ASTM D 635	Self-Extinguishing over concrete
Resistance to Elevated Temperatures MIL-D-3134J	No slip or flow at required temperature of 158°F

ASTM C = Mortar System  
ASTM D = Resin only

## 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 CERAMIC CARPET #444 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 equal to CSP3-5. 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

	Material	Mix Ratio	Theoretical Coverage Per Coat Concrete	Packaging
Primer	3579	2:1	250 sq. ft. / gal	3 or 15 gals
	3561P	4:1	50 sq. ft. / 1.25 gal	1.25 -25 gals
	5350 Trafficote Filler		6 lbs / 1.25 gal	100 lbs
	5310 (40-60 Mesh)		13 lbs. / 1.25 gal	100 lbs
	5310 (40-60 Mesh) for seeding		To Excess 0.5 lbs / sq. ft.	100 lb. bag
Bond Coat	3744	2:1	65-70 sq. ft. / gal	3 or 15 gals
	5900F	To Excess	0.4 lbs. / sq. ft.	50 lb. bag
Grout Coat	3744	2:1	100-110 sq. ft. / gal	3 or 15 gals
Seal Coat	3744	2:1	200 sq. ft. / gal	3 or 15 gals

Materials shall be applied via squeegee and/or roller, in compliance with manufacturer's recommended installation procedure.

## Primer

### *Mixing and Application*

1. Premix 3579 A (resin) and 3579 B (hardener) separately, using a low speed drill and Jiffy mixer. Mix for three minutes and until uniform, exercising caution not to introduce air into the material.
2. Add 2 parts 3579 A (resin) to 1 part 3579 B (hardener) by volume. Mix with low speed drill and Jiffy mixer 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.

## Slurry Coat

### *Mixing and Application*

1. Premix 3561PA (resin) and 3561B (hardener) separately, using a low speed drill and Jiffy mixer. Mix for three minutes and until uniform, exercising caution not to whip air into the material.
2. Add 4 parts 3561PA (resin) to 1 part 3561B (hardener) by volume. Mix with low speed drill and Jiffy mixer for three minutes and until uniform. Add 6 lbs of 5350 Trafficote filler and 13 lbs. of 5310 Dry Silica Sand (40-60 Mesh) to 1.25 gallons of mixed epoxy and mix thoroughly using a low speed drill and Jiffy mixer for three minutes and until uniform.
3. Immediately pour the mixed material onto the substrate and pull out using a 1/4" v-notched red rubber squeegee at a spread rate of 50 square feet per batch.
4. Allow material to self-level 10-15 minutes and cross roll with a textured loop roller. Begin evenly seeding the 5310 Dry Silica Sand (40-60 Mesh) into wet resin much the same as grass seed is spread. Aggregate may be spread by hand or mechanical blower but should be broadcast in such a way that the granules falls lightly into resin without causing the resin to move. Continue broadcasting to excess until the floor appears completely dry.

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 bond coat.

## Bonding Coat

### *Mixing and Application*

1. Premix 3744A (resin) and 3744B (hardener) separately, using a low speed drill and Jiffy mixer. Mix for three minutes and until uniform, exercising caution not to whip air into the material.
2. Add 2 parts 3744A (resin) to 1 part 3744B (hardener) by volume. Mix with low speed drill and Jiffy mixer for three minutes and until uniform.
3. Immediately pour the mixed material onto the substrate and pull out using a 1/4" v-notched red rubber squeegee at a spread rate of 65-70 square feet per gallon, cross roll with a 3/8" nap roller.
4. Allow material to self-level 10-15 minutes. Begin evenly seeding the 5900F into wet resin much the same as grass seed is spread. Granules may be spread by hand or mechanical blower but should be broadcast in such a way that the granules falls lightly into resin without causing the resin to move. Continue broadcasting to excess until the floor appears completely dry.
5. Allow to cure for 24 hours, sweep off excess granules with a clean, stiff bristled broom. Clean granules can be saved for future use. All imperfections such as high spots should be smoothed before the application of the seal coat.

NOTE: 5900F Granule distribution is critical to the success of the application. The floors finished appearance depends on the manner in which the granules have been applied. In grass seed like fashion, allow the granules 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 3744A (resin) and 3744B (hardener) separately, using a low speed drill and Jiffy mixer. Mix for three minutes and until uniform, exercising caution not to introduce air into the material.
2. Add 2 parts 3744A (resin) to 1 part 3744B (hardener) by volume. Mix with low speed drill and Jiffy mixer for three minutes and until uniform. To insure proper system cure and performance, strictly follow mix ratio recommendations.
3. Apply 3744 using a flat trowel or squeegee and backroll with a 1/4" nap roller at a spread rate of 100 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 applying seal coat.

## Seal Coat 3744

### *Mixing and Application*

1. Premix 3744A (resin) and 3744B (hardener) separately, using a low speed drill and Jiffy mixer. Mix for three minutes and until uniform, exercising caution not to introduce air into the material.
2. Add 2 parts 3744A (resin) to 1 part 3744B (hardener) by volume. Mix with low speed drill and Jiffy mixer for three minutes and until uniform. To insure proper system cure and performance, strictly follow mix ratio recommendations.
3. Apply 3744 using a flat trowel or flat squeegee and backroll with a 1/4" nap roller at a spread rate of 200 square foot 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.

**Note: Epoxy materials will appear to be cure and "dry to touch" prior to full chemical cross linking. Allow 3744 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

MSDS (Material Safety Data Sheets) must be read and understood by personnel responsible for supervision and installation of the General Polymers Materials. In particular, PPI (Personal Protection Index) data should be consulted to help insure safe handling. 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 to 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 to 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. Sylmar, California.

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

## Warranty

The sale of General Polymers Brand products is governed by the Standard Terms and Conditions of Sale. Sherwin-Williams has no knowledge or control concerning buyer's use for the product nor over the quality of the concrete or substrate to which they are applied. Sherwin-Williams assumes no responsibility for any loss or damage resulting from the handling or use of the products by the buyers. Sherwin-Williams makes the following **LIMITED WARRANTY** that its products have been supplied free from manufacturing defects, and will conform to Sherwin-Williams manufacturing standards. Technical data furnished is true and accurate to the best of our knowledge; however, no guarantee of accuracy is given or implied. This Limited Warranty shall not apply in the case of improper installation, improper substrate construction, damage beyond the scope and protection of the products, exposure of the products to solvents and/or higher concentrations of acids than that for which the products are designed and loss of bond due to hydrostatic pressure, vapor pressure, capillary action or moisture from within, under or adjacent to the concrete surface.

SHERWIN-WILLIAMS' LIABILITY SHALL NOT EXCEED REPLACEMENT OF OR RETURN OF THE PURCHASE PRICE FOR THE PRODUCTS WHICH IT MAY SELL WHICH MAY PROVE TO BE DEFECTIVE UNDER NORMAL USE AND SERVICE WITHIN ONE YEAR FROM DATE OF SALE AND WHICH UPON EXAMINATION BY SHERWIN-WILLIAMS SHALL DISCLOSE, TO SHERWIN-WILLIAMS' SATISFACTION, TO BE DEFECTIVE. IN NO EVENT SHALL SHERWIN-WILLIAMS BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, BUYERS LOSS OF MATERIAL OR PROFITS, INCREASED EXPENSE OF OPERATION, BODILY INJURY, LOSS OF USE OF PROPERTY, OR DOWNTIME. SHERWIN-WILLIAMS MAKES NO IMPLIED WARRANTIES OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE. THE BUYER HEREBY EXPRESSLY WAIVES ANY CLAIM TO ADDITIONAL DAMAGES.

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