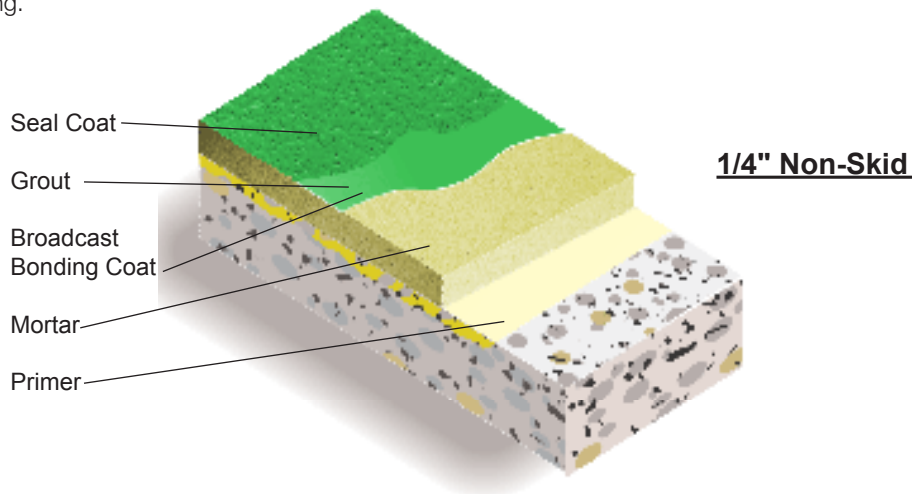




# TPM<sup>®</sup> #115-U4 Upgraded Troweled Mortar System

**General Polymers TPM #115-U4 UPGRADED TROWELED MORTAR System** is a 3/16" - 1/4" protective resurfacing system utilizing an epoxy and silica aggregate mortar, high build grout and seal coat and selected aggregate for skid-inhibiting.



## Advantages

- Protects substrates from heavy conditions of thermal shock, impact and wear
- Resists degradation from many chemicals, acids and alkalis
- Wide range of colors available
- Varied skid inhibition
- Available with an antimicrobial agent

## Uses

- Pulp and paper plants
- Waste water treatment facilities
- Pharmaceuticals
- Drum storage areas
- Petroleum refineries
- Food and beverage facilities

## Typical Physical Properties

Color	Standard Colors
Hardness, Shore D ASTM D 2240	80/65
Compressive Strength ASTM C 579	15,000 psi
Tensile Strength ASTM C 307 ASTM D 638	1,700 psi 6,000 psi
Flexural Strength ASTM C 580	3,700 psi
Adhesion ACI 503R	300 psi concrete failure
Abrasion Resistance ASTM D 4060, CS-17 Wheel, 1,000 cycles	70-90 mgs lost
Impact Resistance MIL-D-3134, Sec.4.7.3	Withstands 16 ft lbs without cracking, delamination or chipping
Flammability ASTM E 648 Critical Radiant Flux	Class I, 0.93

## 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 **TPM #115-U4 UPGRADED TROWELED MORTAR 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.

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. Protect material from freezing prior to installation.

## Application Information – Surface Prep Profile CSP 4-6

VOC MIXED		MATERIAL	MIX RATIO	THEORETICAL COVERAGE PER COAT CONCRETE	PACKAGING
<50 g/L	<b>Primer</b>	3579	2:1	250 sq. ft./gal	3 or 15 gals
<50 g/L 0	<b>Mortar</b>	3561 5115	4:1	33 sq. ft. / 1¼ gal @ 1/4" 44 sq. ft. / 1¼ gal @ 3/16" **70 lbs / 1¼ gal	1.25 - 250 gals 50 lbs
<100 g/L 0	<b>Bonding Broadcast</b>	3746 Premeasured Units 5310-8 20-40 mesh	2:1 to excess	100 sq. ft. / gal 0.5 lbs / 1,000 sq. ft.	3 or 15 gals 50 lb. bags
<100 g/L	<b>Grout</b>	3746 Premeasured Units	2:1	100 sq. ft./gal	3 or 15 gals
<100 g/L	<b>Seal Coat</b>	3746 Premeasured Units	2:1	100 sq. ft./gal	3 or 15 gals

\*\* Additional 5115 aggregate may be added to 1¼ gallon of mixed epoxy to facilitate power troweling (10 lbs. recommended).

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

## Primer

### Mixing and Application

1. 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. Apply via brush, roller, or spray at a rate of 250 square feet per gallon (6 WFT mils). Wait for primer to become tacky (usually 1 hour minimum). This prevents primer from bleeding through and sliding during mortar placement. If primer is to be allowed to cure for more than 4 hours, broadcast lightly but uniformly with clean, dry 40-60 mesh aggregate.

## Mortar

### Mixing and Application

1. Premix 3561 A (resin) using a low speed drill and Jiffy mixer. Mix for one minute and until uniform, exercising caution not to whip air into the material.

2. Add 4 parts 3561A (4 quarts resin) to 1 part 3561B (1 quart hardener) by volume. Mix with low speed drill and Jiffy mixer for three minutes and until uniform. Place mixed 3561 into mortar mixer. Slowly add 70 pounds of 5115 aggregate. Mix until aggregate is thoroughly 'wet out'. Immediately dump mortar onto substrate and screed to desired thickness.

3. Compact and smooth the mortar using a hand or power trowel. Allow to cure (Cure times vary depending on environmental conditions).

## Bonding / Broadcast Coat

### Mixing and Application

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

2. Add 2 parts 3746A (resin) to 1 part 3746B (hardener) by volume. Mix with low speed drill and Jiffy mixer for three minutes and until uniform.

3. Apply 3746 using a spring steel trowel or red rubber squeegee and back roll with a 3/8" nap roller at a spread rate of 100 sq. ft. per gallon.

4. Broadcast 5310 Dry Silica Sand (20-40 Mesh) or other approved aggregate to excess into the wet bonding coat. Allow to cure (Cure times vary depending on environmental conditions) before applying seal coat.

## Grout Coat

### Mixing and Application

1. Sweep off using a clean, stiff bristled broom or vacuum to remove excess aggregate. Premix 3746A (resin) using a low speed drill and Jiffy mixer. Mix for one minute and until uniform, exercising caution not to whip air into the material.

2. Add 2 parts 3746A (resin) to 1 part 3746B (hardener) by volume. Mix with low speed drill and Jiffy mixer for three minutes and until uniform.

3. Apply 3746 using a spring steel trowel or red rubber squeegee and back roll with a 3/8" nap roller at a spread rate of 100 sq. ft. per gallon. Allow to cure 8-10 hours minimum before applying topcoat.

## Seal coat

### Mixing and Application

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

2. Add 2 parts 3746A (resin) to 1 part 3746B (hardener) by volume. Mix with low speed drill and Jiffy mixer for three minutes and until uniform.

3. Apply 3746 using a spring steel trowel or red rubber squeegee and back roll with a 3/8" nap roller at a spread rate of 100 sq. ft. per gallon. 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 epoxy to cure for 2-3 days prior to exposure to water or other chemicals for best performance.

### Application Equipment

#### Brush / Roller

Use 1/4" phenolic core rollers and professional quality, medium stiff natural bristle brushes.

#### Trowel

Use steel finishing trowel or epoxy mortar power trowel such as manufactured by Superior.

## 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 (50°F – 90°F) 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

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

## 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.



**To learn more, visit us at**

[www.sherwin-williams.com/protective](http://www.sherwin-williams.com/protective)  
or call 1-800-524-5979  
to have a representative contact you.