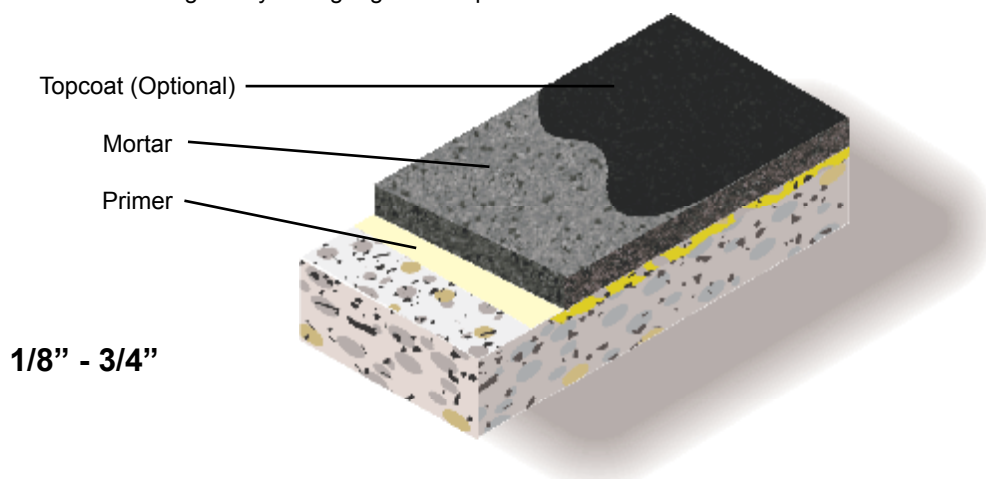




TPM® #721

Repair and Leveling Mortar

General Polymers TPM #721 REPAIR AND LEVELING MORTAR is a single component fiber reinforced, polymer-modified, shrinkage-compensated cement-based repair mortar. It is designed for horizontal or vertical concrete surfaces where high early strength gain is required.



Advantages

- Fast return to service
- Ready to use, simply add potable water
- Fiber reinforced
- High early strength
- Can be extended with up to 25 lbs (11.3 kg) of coarse aggregate
- Excellent freeze/thaw resistance

Uses

TPM #721 Repair and Leveling Mortar system should be applied to distressed or worn concrete surfaces/floors/steps prior to application of any coating systems. It is recommended as a repair material for numerous applications when rapid set is required and economy is desired. Can be used as an underlayment or repair material under other General Polymers products and systems.

Limitations

- For optimal product performance, apply between 40°F (4°C) and 90°F (32°C)
- Always follow ACI 305 and 306 for hot or cold weather installations for best results beyond published recommendations
- Not compatible with solvent-based curing compounds
- Maximum 96 fl. oz. (2.8 L) of water per 50 lb. (22.7 kg)
- Minimum ¼ in. (6 mm) application thickness, maximum 2" (51 mm) application thickness, neat
- Minimum 1 in. (25 mm) application thickness, maximum 6" (152 mm) application thickness, extended
- Do not mix partial bags
- Avoid contact with aluminum surfaces
- When extending, coarse aggregate must be Oven Dried 3/8" Pea Gravel or equivalent. Aggregate must be non-reactive, clean, well-graded, and saturated surface dry (SSD) in compliance with ASTM C 33

Typical Physical Properties @73°F / 23°C 50% RH

Color	Concrete Gray	
Cure Time 72°F, 50% RH		
Recoat	24 hours	
Dry to Touch	30-40 minutes	
Full Cure	28 days	
Working Time	10 minutes	
Initial Set Time	20 minutes	
ASTM C 403		
Final Set Time	35 minutes	
Bond Slant Shear Strength		
ASTM C 882 (mod per ASTM C928)		
	(psi)	(MPa)
7 days	1,400	9.7
28 days	2,000	13.8
Compressive Strength		
ASTM C 109		
	(psi)	(MPa)
1 day	2,350	16.2
7 days	4,000	27.6
28 day cure	5,050	34.8
Direct Tensile Bond Strength		
ICRI 210.3 / ASTM C 1583		
28 days	320	2.2
Flexural Strength		
ASTM C 348		
	(psi)	(MPa)
7 days	940	6.5
28 day cure	1,200	8.3
Freeze/Thaw		
ASTM C 666	Durability factor at least 94%	
	very slight scaling	
Splitting Trensile Strength		
ASTM C 496	(psi)	(MPa)
1 day	500	3.5

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 #721 REPAIR AND LEVELING 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 40°F (4°C) – 90°F (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. Protect material from freezing prior to installation.

Application Information – Surface Prep Profile CSP 3-5

VOC		MATERIAL	MIX RATIO	THEORETICAL COVERAGE PER COAT CONCRETE	PACKAGING
Standard Mix					
<50 g/L 0	Primer	3579 5310 Dry Silica 20-40 mesh	2:1 Full Broadcast	160-200 sq. ft. / mixed gal 100-200 lbs per 1,000 sq. ft.	3 or 15 gals 50 lbs
0 g/L 0	Mortar	TPM 721 plus 96 oz. maximum potable water	50 lbs bag	50 sq. ft. @ 1/8" or 0.43 cubic feet	50 lbs bag

VOC		MATERIAL	MIX RATIO	THEORETICAL COVERAGE PER COAT CONCRETE	PACKAGING
For Repairs Greater Than 3/4"					
<50 g/L	Primer	3579 5310 Dry Silica 20-40 mesh	2:1 Full Broadcast	160-200 sq. ft. / mixed gal 100-200 lbs per 1,000 sq. ft.	3 or 15 gals 50 lbs
0 g/L 0 0 0	Mortar	TPM 721 plus 96 oz. maximum potable water Aggregate extended with 25 lbs clean, well graded, coarse pea gravel	50 lbs bag	12 sq. ft. @ 3/4" or 0.62 cubic feet	50 lbs

Primer

Mixing and Application

1. 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.
2. 3579 may be applied via spray, roller or brush. Apply evenly, with no puddles, at a spread rate of 160-200 sq. ft. per gallon. Immediately, broadcast 5310 Dry Silica Sand (20-40 mesh) at 100-200 lbs per 1,000 sq ft.
3. Allow to cure a minimum of 4 hours.

Mortar

Mixing and Application

For optimal product performance, condition material to 70°F (21°C) prior to use. Do not prepare more material than can be used in the working time of the product. Mix with a low-speed (300–600 rpm) drill and mixing paddle or mortar mixer. Use a maximum of 96 fl. oz. (2.8 L) of potable water per bag, adjusting water content for desired consistency. For best results, add 90% of total mixing water and slowly add entire contents of TPM 721 while mixing to avoid clumping. Adjust using remaining mixing water until desired consistency is achieved, scraping unmixed material from the sides and bottom of mixing container as needed to ensure all material is mixed. Total mix time is approximately 3 minutes. Place immediately. TPM 721 can be extended with Oven Dried 3/8" Pea Gravel or equivalent up to 25 lb. (11.3 kg) per bag, and requires the use of a concrete or mortar mixer. Aggregate used must be non-reactive, clean, well-graded, saturated surface dry (SSD), have low absorption and high density in compliance with ASTM C 33. For additional information contact General Polymers Technical Services Department.

Precautions

- If patches will receive considerable traffic, consider square cutting instead of feather edging to be assured of longer serviceable life of edges.
- TPM #721 is not a precision, nonshrink grout. For grouting needs, contact the Technical Service Department.
- TPM #721 should not be placed on substrates over 90°F or surfaces with temperatures less than 40°F.
- TPM #721 should not be placed in ambient temperatures under 40°F or when temperatures will be below 40°F for 24 hours after installation.
- Avoid applications where there would be exposure to standing water.
- Do not add make-up water beyond the maximum detailed or loss of physical properties can occur.
- If this material is being used a sloping, fill or repair material under a General Polymers topcoat or floor system the surface should be abraded to remove laitance prior to coating.

Application Equipment

Trowel

Use steel finishing trowel

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.

CAUTION:

Contains Portland Cement and Silica. Avoid breathing dust. Cement powder or freshly mixed concrete, grout or mortar may cause skin injury. Avoid contact with skin; wash exposed areas promptly with water. If any cement powder or mixture gets into eyes, rinse immediately and repeatedly with water. Get prompt medical attention.

Material Storage

Store materials in a temperature controlled environment (40°F – 95°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 40°F – 95°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.

Consult 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.



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