



# SHEP PATCH PLUS

## TOPPING AND UNDERLAYMENT

### DESCRIPTION

Shep Patch Plus is a two component polymer modified concrete repair, topping, and underlayment material. The Shep Patch Plus liquid is a high solids content Acrylic Polymer. The Shep Patch Plus Powder is a portland cement based mix with graded silica and special chemical additives. Polymer modified concrete gives improved bonding, improved chemical resistance, improved water resistance and improved tensile, compressive and flexural strengths.

This high strength portland cement/acrylic polymer combination provides a smooth durable semi-resilient surface which can be used as a finished floor in most applications. Shep Patch Plus is easy to mix and apply, requiring no special tools. It is suitable for use as a screedable topping and underlayment, or as a floor, wall or overhead repair material when mixed to a stiffer trowelable consistency. Shep Patch Plus has been approved by the USDA for use in most processing plants and may be used where there is exposure to potable water. Use of Shep Patch Plus can help your project earn LEED Credits. Contact factory for details.

### PRIMARY APPLICATIONS

Shep Patch Plus is designed to be used both as a topping or underlayment and as a wall, floor, and overhead patching and repair material when mixed to a stiffer consistency. For use as an underlayment, mix to the consistency of a thick pancake batter. Use Shep Patch Plus to level and smooth rough or rained on concrete. Shep Patch Plus may be used to level low areas inside or outside. It will bond to and may be used to level virtually any concrete surface.

Mixed as a repair material, Shep Patch Plus may be used to repair walls, floors, tilt panels, driveways, sidewalks, pre-cast members, etc. Shep Patch Plus may be applied from featheredge to 2-1/2 inches. Suitable for interior or exterior applications. Suitable for application where there is rubber tired forklift and vehicle traffic.

### FEATURES & BENEFITS

- Outstanding Bonding
- Improved Water Resistance
- Interior or Exterior Use
- From Featheredge to 2-1/2 inches
- May Be Used as Screedable Underlayment
- May Be Used as a Trowelable Repair Material
- Improved Compressive Strength
- No Moist Curing Required
- High Solids Acrylic Polymer
- May Be Stained or Used With Integral Color
- May Be Used for Stenciled and Decorative Concrete
- LEED Credits Applicable

### TECHNICAL DATA

Working time ..... approximately 25 minutes  
 Color ..... light gray, available in white  
 Initial set ..... 4 hours

Flowable consistency ..... (1 bag to 1 gal.)

Compressive strength (ASTM C 109, air cured)

7 days ..... 4,120 psi

28 days ..... 5,500 psi

Flexural strength (ASTM C 348, air cured)

7 Days..... 1,260 psi

28 days ..... 1535 psi

Slant shear bond (ASTM C 1042, air cured)

28 days ..... 1,250 psi

Trowelable Consistency ..... (1 bag to 0.8 gal.)

Compressive Strength (ASTM C 109, air cured)

7 days ..... 4,550 psi

28 days ..... 6,000 psi

Flexural Strength (ASTM C 348, air cured)

7 Days..... 1,360 psi

28 days ..... 1720 psi

Slant Shear Bond (ASTM C 1042, air cured)

28 days ..... 1,550 psi

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PRODUCT INFORMATION ■ TECHNICAL DATA SHEET



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### DIRECTIONS FOR USE

**Surface Preparation:** All surfaces must be clean and structurally sound; free of dust, grease, oil, paint, sealers, etc. Pores of the concrete surface must be open to permit proper bonding, especially on fresh “green” concrete. Any necessary surface preparation may be done by shotblasting, scarifying, sandblasting or acid etching. If acid etch is used, be sure to neutralize surface, clean and brush thoroughly. For heavy traffic applications, mechanical abrasion of the surface is recommended. Concrete surfaces should be surface saturated but dry to touch (SSD).

Do not bridge cracks with Shep Patch Plus. They will “telegraph” through. Fill cracks prior to placement of Shep Patch Plus. Expansion joints should be extended through the Shep Patch Plus.

**Mixing:** Shep Patch Plus may be mixed in a mortar mixer, with a heavy duty low-to-medium speed drill or by hand. Always use a clean mixing container. Place Shep Patch Plus Acrylic Polymer Liquid in container and add Shep Patch Plus Powder #205, mixing while adding powder. DO NOT ADD WATER. Added water will reduce strength and bonding. Mix for 2 to 3 minutes until a smooth, lump-free mixture is obtained. Mixing time should not exceed 3 minutes. DO NOT OVER MIX and DO NOT entrap air while mixing.

**Use Of Aggregate:** For areas with a thickness over  $\frac{1}{2}$  inch, aggregate should be added to Shep Patch Plus. Add 1 part by volume of  $\frac{3}{8}$  inch pea gravel to 2 parts by volume of Shep Patch Plus. DO NOT ADD WATER.

**Use As Underlayment Or Topping:** For use as an underlayment, mix to desired flowable consistency, no more liquid than one bag to one gallon of polymer. As an underlayment, apply from featheredge to 2.5 inches. Material may be screeded for low places or spread into place with a squeegee. When using as a wearing surface topping and for deeper fills, mix to a stiffer consistency (about  $\frac{7}{8}$  of a gallon to a bag of powder) and install at least  $\frac{3}{8}$  inch thick.

**Use as a Trowelable Non-Sag Repair Material:** For floor, wall, and overhead repairs, mix about  $\frac{3}{4}$  to  $\frac{7}{8}$  of liquid polymer to a bag of powder to get a stiffer, trowelable non-sag consistency. Make a trial batch to get desired consistency. Lubricate trowel with polymer to prevent dragging.

**Installation:** To insure proper bonding, use P-100 Primer or apply a bond slurry coat scrubbed into the surface. The P-100 Primer will give more reliable and consistent results. Allow the primer to dry (30-45 minutes) and install Shep Patch Plus material. Material may be applied up to 24 hours after the primer. The primer will re-emulsify one time and may be used for inside and outside applications.

The bond slurry coat is a syrup-like consistency mix of Shep Patch Plus Powder and Shep Patch Plus Acrylic Polymer. Scrub the slurry coat into the moist surface. Place Shep Patch Plus in place and smooth and spread while slurry coat is still damp. DO NOT LET SLURRY COAT DRY. Screed off to get a smooth flat surface. Use a trowel for touch-up and featheredging. DO NOT OVER TROWEL. Lubricate trowel with polymer to prevent dragging. The liquid polymer makes the materials darker. Less polymer will give a lighter finished surface. For best results, smooth and spread into place and touch-up as needed. A latex film will form when Shep Patch Plus begins to set. This is normal and will disappear.

Normally floor coverings may be applied the next day. With thick applications or cold or damp weather, another day may be required. No heavy traffic should be permitted for 4 to 5 days. When used as an underlayment, always follow the directions of floor covering manufacturers concerning maximum moisture content and perform required tests.

Paints and coatings may be applied over Shep Patch Plus as you would over concrete. For wall applications such as coating or filling concrete block, Shep Patch Plus may be applied with a hopper gun and then floated smooth.



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### PACKAGING

Shep Patch Plus Powder is packaged in 45 lb. moisture resistant bags. Shep Patch Plus Acrylic Polymer Liquid is packaged in 1 gal. jugs, four to a carton.

### ESTIMATED COVERAGE

One 45 lb. bag of Shep Patch Plus Powder and one gal. of Shep Patch Plus Acrylic Polymer Liquid will cover 45 ft<sup>2</sup> at 1/8 inch thickness.

### PRECAUTIONS

- Do not use below 40°F (4°C). The best temperature to use is 60° - 90°F (15° - 32°C). DO NOT LET SHEP PATCH PLUS ACRYLIC POLYMER LIQUID FREEZE. Always make a trial installation first under actual job conditions to be sure you get the desired results before using on larger areas.
- CONTAINS SILICA SAND AND FREE SILICA. Do not breathe dust. Avoid inhalation by wearing respirator. Continuous exposure and inhalation may cause silicosis and crystalline silica is classified as a known human carcinogen.
- Shep Patch Plus acrylic polymer is resistant to most petroleum solvents, sealers, and cure and seal products. Shep Patch Plus may soften slightly, but will harden after evaporation of solvent. Wait 4 to 5 days after Shep Patch Plus installation before applying a sealer. Always do a sample area first.
- Areas subject to fast drying and outside applications should be covered with damp burlap or plastic for 48 hours. Weathering and surface oxidation may cause a bonding problem with exterior applications. Exterior surfaces should be scarified or sand-blasted prior to application of Shep Patch Plus.
- CONTAINS Portland Cement.
- Avoid eye contact or prolonged contact with skin. Wash thoroughly after handling. In case of eye contact, flush with plenty of water for at least 15 minutes. Consult a physician immediately. Keep out of the reach of children.

**LIMITED WARRANTY: NOTICE - READ CAREFULLY.** CONDITIONS OF SALE. Manufacturer offers this product for sale subject to, and Buyer and all users are deemed to have accepted, the following conditions of sale and limited warranty which may be varied by written agreement of a duly authorized corporate officer of Manufacturer. No other representative of or for Manufacturer is authorized to grant any warranty or to waive limitation of liability set forth below.

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