



# ChemMasters®

## FeatherPatch™

Polymer Modified Repair Mortar  
For Featheredge to 1" Depth

SPECIALTY CONSTRUCTION PRODUCTS

### P R O D U C T D A T A

#### DESCRIPTION

**FeatherPatch** is a blend of graded quartz, silica sand, cements and proprietary additives. It is a single component, polymer modified mortar, requiring only water for mixing. **FeatherPatch** is specially formulated for thin repairs from featheredge to 1 inch (2.5 cm). It has a smooth texture that is easy to finish with a broom, float or trowel.

#### USES

- Interior or exterior repair of horizontal concrete and masonry surfaces
- Filling voids and honeycombs in foundation work and walls
- Repairing spalls, cracks or chips in floors, driveways, sidewalks, steps, etc.
- Leveling low spots, "birdbaths", in concrete slabs

#### ADVANTAGES

- Excellent flexural, tensile and compressive strengths for durable repairs
- Forms chemical and mechanical bond to sound surfaces; does not require special bonding agent
- Polymer modified for resistance to deicing chemicals, salts, fertilizers, acids or alkalis
- Excellent abrasion and impact resistance.
- Dense surface texture for improved freeze/thaw resistance
- Featheredge to 1 inch (2.5 cm) depth in one lift; may be placed in layers for full depth repairs

#### Packaging Product Number

50 lb (22.7 kg) bags	56 bags pallet	F2033.50
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#### TECHNICAL DATA

##### Yield per 50 lb (22.7 kg) bag

A 50 lb (22.7 kg) bag yields	0.42 ft <sup>3</sup>	0.011m <sup>3</sup>
@ 0.25" (0.65 cm)	22.5 ft <sup>2</sup>	2.09 m <sup>2</sup>
@ 0.50 " (1.25 cm)	11.25 ft <sup>2</sup>	1.04 m <sup>2</sup>

#### Compressive Strength ASTM C109 psi/MPa @ X days

	1 day	7 day	28 day
psi	>2100	>4000	>5200
MPa	14.48	27.58	35.85

#### Shear Bond Strength ASTM C882 (mod) Samples displayed cohesive bond failure

psi	>2500
MPa	>17.24

**Typical Working Time @ 72°F (5°C)** is 30 minutes. Cooler temperatures extend working time to 30 to 40 minutes. Temperatures exceeding 85°F (29°C) shorten working time to 15 to 20 minutes.

#### DIRECTIONS

**NOTE:** **FeatherPatch** may be placed from 1 inch down to featheredge for repair of small spalls, holes or defects. When repairing larger areas (over 4 inches in diameter), minimum depth of the repair area is 1/8 inch.

**Surface Preparation:** Proper surface preparation is critical to successful thin repairs. Area to be repaired must be free of all dirt, dust, loose concrete, oil, grease, old asphalt, curing and sealing compounds, form release agents, efflorescence, or other contaminants which might interfere with adequate bond. Where possible, square cut perimeter of repair to a depth of 1/8 inch (3 mm). Saturate the prepared area with clean, potable water to the point of rejection. Remove any puddles or standing water immediately before placing mortar so that concrete is in a Saturated Surface Dry (SSD) condition.

**Mixing:** Mix only an amount that can be placed and finished within 30 minutes. Condition the dry mortar and clean potable mix water to 60° to 75°F (18° to 24°C). Pour 3.5 quarts (3.3 L) to 4 quarts (3.8 L) of clean, potable water per



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bag into a clean mixer or pail, then add **FeatherPatch** and mix 1 to 2 minutes to achieve a lump free consistency. Do not over mix. Do not add additional water or re-temper after initial mixing procedure. Over watering causes excessive shrinkage and lower strengths. Do not add accelerating or bonding admixtures. When mixing one bag use a variable speed drill with a jiffler paddle. For less than full bag requirements, use a drill with a jiffler paddle to mix a proportionate amount of the dry **FeatherPatch** powder and mix water. Scrub a mortar bond coat into the repair area being sure to fill all voids and pores. Do not allow bond coat to dry before placement of mortar.

**Application:** Use a small trowel or margin trowel to compact mortar firmly into repair area filling all voids and air pockets. Smooth surface area with float or trowel and apply broom finish if desired. Do not trowel surface excessively. Blisters can be raised by overworking the surface.

**Repairs Over 1 inch (25 mm):** Apply a 1 inch layer of **FeatherPatch** mortar, compacting well as stated above. Do not smooth surface. Apply a medium broom finish to the first lift in order to provide a mechanical bond between each layer or lift. Allow initial placement of mortar to harden slightly for approximately 45 minutes to 1 hour. Apply next layer of **FeatherPatch**. Continue building up layers as described until void is level with surrounding surface. Smooth surface and apply broom finish if required.

**Sealing:** For best results, **FeatherPatch** must be sealed immediately. Use a water based curing and sealing compound such as **Polyseal WB** or **Safe-Cure & Seal 309**.

**Extreme Temperature Application:** Temperatures above 80°F (26.7°C): Cool the substrate with cool clean potable water. Prior to mixing keep material in cool, dry area, and use cold water for mixing. Temperatures below 50°F(10°C): Keep material warm and use lukewarm water to speed set time.

#### **Limitations:**

- Do not apply to frozen or frosted surfaces.
- Do not apply if ambient or substrate temperatures are below 40°F (4°C).
- Do not exceed maximum recommended water content.
- Do not use solvent based curing compounds.
- Do not add sand or gravel to extend.
- **FeatherPatch** is not intended for use as a thin overlay material over large surfaces subject to wheeled or heavy industrial traffic.

#### **Storage:**

Store between 40°F (4°C) and 90°F (32°C) in unopened bags on pallets in a dry area. Shelf life of properly stored material is one year from date of manufacture.

#### **Precautions:**

**Danger:** Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure if inhaled. Pre-cautionary Statements: Do not breathe dust/fume/gas/mist/vapors/spray. Wash hands and skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.

**All label precautions and the safety Data Sheet must be fully understood before using this product.  
Keep out of the reach of children.**

#### **This Product is Formulated and Labeled for Industrial and Commercial Use Only**

FOR BEST RESULTS AND SAFEST USAGE, USER IS SPECIFICALLY DIRECTED TO CONSULT THE CURRENT PRODUCT & SAFETY DATA SHEETS AND PACKAGE LABEL FOR THIS PRODUCT. We warrant our products to meet our published specifications and to be free from defects in materials and workmanship to the acceptable quality levels defined in these specifications. If acceptable quality levels are not specified, the acceptable quality levels will be those normally supplied by us for the product. We make no guarantee of the results to be obtained from the use of our products. The determination as to the adaptability of any of our products to the specific needs of the Buyer is solely Buyer's prerogative and responsibility. We are glad to offer suggestions on the use of our products. Nevertheless, there are no warranties given except such expresses warranties offered in connection with the sale of a particular product. Our liability shall be limited to replacement of, or refund of an amount not to exceed the purchase price attributed to, the goods as to which such claim is made. Our selection of one of these alternatives shall be Buyer's exclusive remedy. IN NO CASE SHALL WE BE LIABLE FOR CONSEQUENTIAL OR SPECIAL DAMAGES, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, GUARANTEES, CO-CONDITIONS AND REPRESENTATIONS, EITHER EXPRESSED OR IMPLIED, WHETHER ARISING UNDER ANY STATUTE, COMMON LAW, USAGE OR TRADE, COURSE OF DEALING OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.