SURFACE PREPARATION PRODUCTS

TECHNICAL DATA SHEET

FLASH PATCH

View More Info for this Product at
http://www.surecretedesign.com/flash-patch/

Flash Patch

DESCRIPTION

Flash Patch is a single component, self-bonding cement-based patching compound that sets up rapidly, with a 10 minute working time. Due to its relatively fine aggregate (sand), it may be feathered to nearly zero. ***Flash Patch*** may be overlaid or put in service the same day the patch is applied; there is no lengthy cure time required. It offers superior bonding power without additional bonding agents, able to patch low spots, divots, and spalls in concrete floors, and the resilience to repair even commercial loading docks and parking lots.

SURFACE PREPARATION

The principles for surface preparation for ***Flash Patch*** are aligned with other cement-based overlays placed on concrete and remain constant; the substrate must be:

1. Clean: The surface must be free of dust, dirt, oil, grease, paints, glues, sealers, curing agents, efflorescence, chemical contaminants, rust, algae, mildew and other foreign matter that may serve as a bond breaker.

2. Cured: Any concrete must be sufficiently cured to have sufficient hydration, approximately 7 - 14 days depending on temperatures and humidity.

3. Sound: No system should be placed upon concrete or an existing cement-based overlay that is flaking, spalling, or has hibernating spalling.

4. Profiled: Proper profile should follow the standard established by the International Concrete Repair Institute (ICRI) Technical Guideline no. 03732 for Concrete Surface Profile (CSP). The established profile is categorized as CSP-1 through CSP-4.
The most common means to properly profile many concrete slabs (especially exterior slabs) is through the use a pressure washer equipped with a turbo-tip and the use of ***SCR*** (see ***SCR*** TDS). Some concrete slabs that are hard troweled or that are not sound may require more aggressive profiling through diamond grinding or shot blasting.
Customarily profiling is not required for application over another cement- based overlay.

TEMPERATURE/CURE

1. Air and substrate surface temperatures shall range between 40°F (10°C) and 85°F (29°C) during placement and remain within range for a minimum of 4 hours after placement.
2. No precipitation should occur during or within 3 hours of placement.
3. Temperature must remain above freezing for a minimum of 24 hours after placement.
4. Cure / set times @ 77°F (25°C) ambient temperature
   a. initial set in 15 – 25 minutes
   b. light traffic in 45 – 60 minutes
   c. heavy traffic in 3 – 6 hours

SURECRETE DESIGN PRODUCTS

PACKAGING
50 pound (22.7 kg) bag
20 pound (9.1 kg) pail

MIXING RATIO
4 – 4 ½ qt. (3.8 – 4.3 liter) water to 1 – 50 pound (22.7 kg) bag of ***Flash Patch***
(optional) .5 pound (227 g) ***Color Pack*** (30 standard colors) to 1 – 50 pound (22.7 kg) bag (see ***Color Pack*** TDS)
51 – 57 oz. (1.4 – 1.6 liter) water to 1 – 20 pound (9.1 kg) pail of ***Flash Patch***

COVERAGE
1 - 50 lb. (22.7 kg) bag of ***Flash Patch*** = approximately 11 ft² @ ½" (1 m² @ 13 mm)
1 – 20 pound (9.1 kg) pail of ***Flash Patch*** = approximately 4.4 ft² @ ½" (.4 m² @ 13 mm)

DENSITY
128 pounds/ft³ (2047 kg/m³)

COMPRESSIVE STRENGTH ASTM C-109
3 hour 3090 PSI (21340 kPa)
24 hour 4850 PSI (33440 kPa)
28 Days 6042 PSI (41660 kPa)

FLEXURAL STRENGTH ASTM C-348
6 hour 300 PSI (2068 kPa)
7 day 685 PSI (4723 kPa)

TENSILE STRENGTH ASTM C-190
6 hour 275 PSI (1896 kPa)
7 day 495 PSI (3413 kPa)

SHELF LIFE
Under normal conditions: when kept dry and moisture free, out of direct sunlight, the shelf life of an unopened bag is (12) months from the date of purchase. Storage must be under roof and off the floor. Rotate inventory to maintain product that is within limits

APPLICATION

Crack Treatment / Construction Joints
Cracks may require treatment: Refer to S***CT-22 Crack and Spall Treatment and SCT-EP Epoxy Crack Treatment*** TDS to evaluate crack as static or structural to set expectation of treatment.
Flash Patch may fill large voids created by random cracking, but large or structural cracks have sufficient movement to "telegraph" through ***Flash Patch*** applications. Likewise, bridging construction joints in concrete will also "telegraph" through ***Flash Patch*** applications.

Mixing and handling
Commonly full bags of ***Flash Patch*** may not be required for many patches. Additionally, no more material should be mixed than can be placed in 10 minutes. While weighing dry bag mix with a scale is most accurate, what follows will work with volumetric measuring alone:

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Small batch = 1 qt. dry + 1 cup water (.95 liter dry + .24 liter water)

1. Add 8 oz. or 1 cup (.24 liter) water for each 1 qt. dry (.95 liter) ***Flash Patch*** to an appropriately sized vessel.
2. Begin adding dry mix to water while running mixer. Mix with an appropriately sized mixer (from a cordless drill with a "jiffy" style blade to a heavy-duty mixer or ½" (12.7 mm) 450 – 600 rpm drill equipped with a cage mixing blade.)
3. Scrape side of pail with a margin trowel to ensure all dry product is incorporated into the wet mix.
4. Continue to mix for a minimum of 30 seconds after all ingredients are combined to achieve a lump-free consistency. Additional water may be added up to a total of 9 oz (.27 liter) water to 1 qt. (.95 liter) dry mix.

Full bag

1. Add approximately 4 quarts (3.8 liters) water to a 5 gal. (18.9 liter) pail.
2. Add 1 - ***Color Pack*** if desired.
3. Mix with a handheld concrete mixer, such as an Eibenstock model #EHR 20R or a ½" (12.7 mm) 450 – 600 rpm drill equipped with a cage mixing blade for a minimum of 15 seconds.
4. Slowly introduce ***Flash Patch*** into the pail with mixer running.
5. Scrape side of pail with a margin trowel to ensure all dry product is incorporated into the wet mix.
6. Continue to mix for a minimum of 1 minute after all ingredients are combined to achieve a lump-free consistency. Additional water may be added up to a total of 4 ½ quarts (4.3 liters) water to 1 – 50 pound (22.7 kg) bag of ***Flash Patch***.
7. No tempering with additional water should be attempted.

Patching

1. Trowel by hand or squeegee product tightly into patched area, as quickly as is reasonable. Minimize troweling, do not overwork surface.
2. Allow product to dry sufficiently before placement of any overlay. Be certain that the patched surface is no longer generating excessive heat from its curing. Usually 25 – 60 minutes are required.

SLIP RESISTANCE

Two recognized US agencies have issued directives on minimum coefficient of friction, OSHA (Occupational Safety and Health Administration) and Department of Justice through the ADA (Americans with Disabilities Act). ADA is the more stringent of the two. ADA directs that accessible walkways have a minimum coefficient of friction of 0.6. Ramps have been directed to be 0.8. The applicator assumes the responsibility to meet these standards. Especially exterior surfaces or surfaces that may become wet, oily, or greasy require attention. Refer to spec. sheets on ***SureGrip (Additive)*** and its accompanying coefficient of friction table.

SUITABILITY SAMPLE

Due to condition specific sites, always prepare an adequate number of test areas. Wear protection system and aesthetic suitability for products' intended use should be included. On site sample approval is especially critical on substantial, heavy traffic situation or custom coloration.

CLEAN-UP

Before ***Flash Patch*** dries; spills and tools can be cleaned up with water.

DISPOSAL

Contact your local government household hazardous waste coordinator for information on disposal of unused product.

LIMITATIONS

For use by trained professionals that have read the complete SDS.

WARRANTY

Warranty of this product, when used according to the directions, is limited to refund of purchase price, or replace¬ment of product (if defective), at manufactures/seller's option. SureCrete Design Products shall not be liable for cost of labor or direct and/or incidental consequential damages.

CAUTIONS

KEEP OUT OF REACH OF CHILDREN. Inhalation: Avoid prolonged breathing of airborne dust, particularly present during mixing. Use NIOSH approved respirator for nuisance if threshold limit values are unsafe. Skin Contact: **Skin contact** may cause irritation. Remove contaminated clothing and wash affected skin with soap and water. Launder clothing before reuse. If symptoms persist, seek medical attention. **Eyes**: Wear safety eye protection when applying. Contact with eyes may cause irritation. Flush eyes with water for 15 minutes. If symptoms persist, seek medical attention.

SAFETY DATA SHEETS

The following are links to all available safety data sheets related to this product:

- surface-prep-flash-patch-sds.pdf

TECHNICAL DATA SHEET