

CONCRETE FLOOR REPAIR

TECHNICAL DATA

SECTION 03 3543
BONDED ABRASIVE POLISHING CONCRETE FLOORS

SECTION 09 9723
CONCRETE SEALERS

MatchPatchPro

[Download Specification](#)



Match Patch Pro LPL Patent Pending

Description:

- Long Pot Life Concrete Crack and Spall Repair System Specifically Designed to aesthetically Blend and Meet the Required Abrasion Resistance for Clear Sealed and Polished Concrete Flooring.

Exclusive Design:

- Match Patch Pro composition through its hybrid blend of resin, Portland cement and latex binders overcomes many of short-falls of the single binder products. There are no known equal or better architectural repair products.
- Only architectural concrete floor repair material that utilizes performance characteristics of multiple concrete binders.
- Exclusive in-field scientific color match system allowing easy, on site color matching of existing concrete slabs.

Features

- Extended Pot Life to 20-30 minutes.
- Cures for initial grind in 6-7 hours.
- Accelerator can be used to reduce cure time 40%.
- UV Resistant
- Moisture tolerant.
- Accepts concrete dyes.
- Densifies with Reactive Silicates as Concrete.
- Can be matched to concrete of any age.
- Does not fish bowl when installed correctly.
- Bonds tenaciously at repair edges and does not chip or break at the thinnest feather edges.
- Can fill spall of any size up to 1" thick, even very shallow spalls.
- A virtually invisible crack repair material when matched properly.

Physical Properties

SHELF LIFE
1 year in unopened containers.
Protect from freezing.

TENSILE STRENGTH:
6,300 psi

ELONGATION:
3.1%

IMPACT RESISTANCE:
Excellent

ABRASION RESISTANCE:
Mohs Scale of Hardness 6+

COMPRESSIVE STRENGTH:
10,500 psi

BOND STRENGTH:
535 psi (concrete failure)

CURE SCHEDULE:

APPLICATION TEMPERATURE:
20-90 degrees F (lower temperatures will require additional cure time)

Pot life (150 gram mass) 20-30 minutes @ 700 F

First Grind 6-7 hours @ 70 degrees F

Ready to Polish 6-7 hours @ 70 degrees F

PRIMER:
Liquids from the kit are used for the primer (self priming)

Packaging

Packaged in 3 gallon units kits

- Part A Resin
- Part B Resin
- 8-gallon Part C cements
- Two 8oz colorants with measures
- 1-gallon Part D topical admixture concentrate
- 2- #6 mixing and application knives
- 1 quart incremented reusable mixing cups.

Regulatory Compliance

100% Solids,
No VOC's

Meets USDA and
FDA Requirements

Meets USGBC
LEED Criteria –
IEQ4.1

DOT Classification
“Not Regulated”

Product Storage Store product in an area so as to bring the material to normal room temperature before using. Continuous storage should be above 55⁰ F to prevent product crystallization. Do not store in direct sunlight.

Limitations Color stability and mixture may be affected by environmental conditions such as UV light, high humidity or chemical exposure.
Product may discolor if exposed to certain types of light such as sodium vapor lighting. Final cured product colors may vary from batch to batch and be influenced the by silica aggregate when used.
Substrate temperature must be 5⁰ F above dew point.
All new concrete must be cured for at least 30 days prior to application.
When applying material in cold areas, make sure the surface is clean and dry. Also, it is best to keep the material and aggregate sand at normal room temperature
Test data based on neat resin unless otherwise noted.
Physical properties are typical values and not specifications.
Interior use only.

Surface Preparation All dirt, oil, dust, foreign contaminants and laitance must be removed to assure a trouble free bond to the substrate. For repair of spalled concrete, a stiff wire brush can be used to remove all loose concrete. After wire brushing the spalled area, remove all loose dust and debris with an industrial vacuum.

Installers must have successfully completed certification training course

Repair Schedule Repairs are installed first to prevent “fish bowling” of open holes and spalls. Grinder tooling will slightly travel into spalls larger than a dime, sloping down the outside edges of spalls. No more than one quick grinding pass should be done prior to installation of Match Patch Pro. Failure to do so will cause repairs to be slightly lower than the adjoining concrete and be visible in the reflection of the finished floor.

- If the floor has mastics or other residues; only do a quick first pass with the tooling you have chosen, to expose the spalls and cracks needed to repair.
- If the floor is clean, with the spalls and cracks fully visible; patch first, before you start grinding the field of the floor.

BASIC INSTRUCTIONS

WEAR EYE AND SKIN PROTECTION

1. Perform color match sample and compare to Match Stick (LPL colors darker).
2. Add colorants per chart amounts to part C Cements.
3. Prep and clean repair areas removing all loose debris and dust.
4. Mix one to one part A and part B.
5. Add tinted part C Cements.
6. Hand tool mixture into spalls and cracks, overfilling 1/8”.
7. After proper cure, grind patch flush with adjoining concrete.
8. Grout repairs if needed.
9. Hand grind flush when cured.
10. Proceed with Polishing process.

INSTRUCTIONS

WEAR EYE AND SKIN PROTECTION

1) Compare Concrete to Match Stick

- A) Perform a small grinder/hand polish sample on concrete to match. Use schedule of abrasives specified on project to #200 resin disc. Then apply silicate densifier to be used per manufactures instructions. Run #400 resin pad over densified sample. Match samples to finished polish sample area and choose closest matching sample. Clear sealers are compared to a Match Stick that has the sealer being used and a small sealed sample.
- B) Note any color adjustments as needed.
- C) Owner or Owner’s representative should choose color. If custom color is requested, more samples will be needed at added cost.

***NOTE: There can be several different colors of concrete across floors poured at different times. Additional color matching may be needed for diverse slabs**

*** Patches can be porous due to environmental conditions. Grouting patches with close corresponding color is recommended, this will add 1.5 hours cure time to repairs**

2) Perform Mock-up or sample

- A) Prepare spall or crack to receive repair material. Chip out clean spalls using chipping gun. Chase out clean cracks using wire brush. Vacuum all dust and loose debris
- B) Add colorant per coinciding Match Stick codes, using provided colorant Measures, to 11oz part C cements.
- C) Make any needed adjustments for custom color.
- D) Polish repair sample and compare for match.
- E) Obtain customer approval before proceeding.

3) Making repairs

- A) If the floor has mastics or other residues; only do a quick first pass with the tooling you have chosen, to expose the spalls and cracks needed to repair.
- B) If the floor is clean, with the spalls and cracks fully visible; patch first, before you start grinding the field of the floor.
- C) Prepare spall or crack to Receive repair material. Chip out clean spalls using chipping gun as pictured. Chase out clean cracks using wire brush.
- D) Vacuum all dust and loose debris from repair areas.
- E) Add prescribed colorant to One gallon (11.41 lbs.). Mix using box type mixing blade on a industrial drill for two minutes. This will produce 11 – 12 oz mixes. This will patch approximately 165 - 1 ½” Spalls.
- F) Begin mixing Match Patch Pro
 1. Scoop 11oz part C colored cement powder with 11oz scoop provided in kit.
 2. Pour 1.5oz Part B resin into one quart mixing cup. Add 3oz Part A resin into part B in same mixing cup and stir A&B together with provided #6 spatula. Make sure that colors have blended with no streaks.
 3. Add part C to mixed A&B resins and mix completely with no dry pockets.
 4. Install patch material using #6 spatula into spalls and cracks over filling 1/8” making sure all edges are generously overlapped.
 5. Wipe off #6 spatula with rag and repeat steps 1, 2, 3, 4 process. Plastic quart cups can be easily cleaned and reused when material hardens in them.
- G) After 6-7 Hours (Depending on temperature) cure time, grind patches flush with adjoining concrete. This can be done using Zec discs, 24 segmented 7” metal cup discs and #50 Easy Edge discs.

Continue as normal with concrete Polishing or clear seal application.

Grout Mix

Match Patch Pro can be mixed into a grout formulation. It can be mixed and poured to the floor to grout pin holes and hairline cracks and can be loaded into side-by-side cartridges for easy installation to small cracks.

- A) Floor Grouting is done after #60/80 metal cuts.
- B) Mixing for grouting entire floor area.
 1. Mix chosen grout colorant into one gallon of part C cement “Smooth. Completely mix using box type mixing blade on an industrial drill for two minutes.
 2. Mix Pour 64oz (½ Gallon) Part B resin into clean 5 gallon bucket. Add 128oz (1 Gallon) Part A resin into same 5 gallon bucket and completely mix using box type mixing blade on an industrial drill for 2 minutes.
 3. Immediately add 1.5 gallon part C “Smooth” Part C cement that was colored to mixed A&B resin. Completely mix using box type mixing blade on an industrial drill for one minute.
 4. Immediately pour a ribbon on floor and squeegee using a stand up metal smoothing trowel.
 5. Repeat process until entire floor has been covered. Let cure for two hours before grinding.

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