

CERTI-VEX[®] PATCH AP

ALL PURPOSE REPAIR MORTAR

FAST SETTING • RAPID STRENGTH GAIN

DESCRIPTION

CERTI-VEX PATCH AP is an ideal general purpose mortar for quality repairs of damaged concrete. Certi-Vex Patch AP is an excellent choice for repairing precast or prestressed concrete.

The materials unique formula of special portland cements, finely graded aggregates, shrinkage compensating materials and expansive cementitious binder allow it to maintain its strength at various consistencies, from flowable to trowelable.

Certi-Vex Patch AP can be applied from ¼” to 6” thickness in a single application.

BENEFITS

- Rapid set times
- Rapid early strength gain
- Excellent freeze/thaw resistance
- Excellent bond, tensile and flexural strength
- Cost effective
- Contains no chlorides, metals or gypsum
- Flowable

RECOMMENDED FOR

- Repair to concrete pipe, pre-cast, cast-in-place or pre-stressed concrete
- Fast repair to balconies, bridges, pilings, parking decks and many other structures
- Repair or finish damaged and spalled concrete

SURFACE PREPARATION

- Surfaces to be repaired must be structurally sound, clean and free of dust, dirt, oils, paints and all other contaminants that will prevent proper bond.
- Prepare area by high pressure water blast, or other mechanical means to expose a aggregate surface with a minimum surface profile of +/- 1/16”.
- If reinforcing steel is exposed, remove 1” of surrounding concrete. If there is corrosion on the reinforcing steel remove concrete 3” beyond any evidence of corrosion along the steel. Remove all corrosion and protect the steel with **Certi-Vex Epoxy AC**.

SURFACE CONDITIONING

The surface to receive the repair material must be saturated, surface dry (SSD) with no standing water.

PRIMING

- Prime the prepared substrate with a brush or spray applied coat of **StarSeal[®] Envio Bond** or Cert-Vex Epoxy AC to the SSD surface.
- Alternatively, apply a scrub coat by mixing Certi-Vex Patch AP with the maximum allowable amount of clean water and scrub the material onto all exposed SSD surfaces to receive Certi-Vex Patch AP. Place Certi-Vex Patch AP into the wet scrub coat before it dries.

MIXING

- Mixing proportions: Use 9 pints of clean, potable water per 50 lb. bag for a trowable consistency.
- Add water to a suitable mixing vessel. Use a low speed (not to exceed 650 RPM) ½” drill and paddle.
- Place most of the water in a clean mixing container. Reserve the remainder. Add ¾ of powder then mix until uniform. Add remainder of powder and continue to mix to a smooth, lump-free consistency. Add reserve water if necessary to achieve desired workable consistency.
- Mix enough material to permit continuous placement before any part of the material has set.
- Applications over 2 inches in thickness must be extended by the addition of 25 to 40 lbs. of clean, uniformly graded ¾” maximum size pea gravel for each 50 lbs. of Certi-Vex Rapid AP.
- Addition of pea gravel should be after a uniform lump free consistency is obtained, then continue mixing until the pea gravel blends in evenly.
- The pea gravel should be pre-wet to an SSD condition.
- Do not add additional water when using pea gravel.
- Mixed product should be placed immediately.
- **NOTE:** Do not mix longer than two (2) minutes. Do not mix more material than can be placed in 5 minutes. **DO NOT RETEMPER.**
- **NOTE:** For a flowable consistency add up to 6 quarts or 11-12 pints of water per 50 pounds of material.

SET TIMES

To extend set time use cold water. To reduce set time use hot water. Site environmental conditions such as air and substrate temperature will also affect set times.

PLACEMENT

- Firmly work into the SSD surface by hand or trowel, filling all pores and voids. Force material against edge of repair, from the center. After filling the repaired area shave to conform to contour of surrounding surface.
- For pumping, contact your Vexcon representative.

YIELD

50 pounds will yield 0.45 cubic feet of repair mortar with a flowable consistency. The product when extend with 25 lbs. of pea gravel will yield 55.6 cubic feet.

CURING

Immediately after placement and finishing all exposed surfaces should be cured with a Vexcon Chemical curing compound. When conditions exist for rapid water loss, the use of **Starseal Envio-Assist**, evaporation retarder is recommended. Protect the newly placed material from wind, sun, rain, and frost.

LIMITATIONS/SPECIAL NOTES

- Do not retemper or add water to the surface during finishing.
- Do not apply when air and surface temperature is below 40° F (5° C).
- All materials should be conditioned to the appropriate temperature range of 65° F to 75° F (18° C - 24° C) prior to mixing and placement.
- Protect from freezing.
- Placing and finishing operations should occur concurrently without interruption.
- Do not add more water than directed.
- For additional information on substrate preparation refer to ICRI guide lines.
- Storage/ Handling: Store in tightly sealed original factory container. Keep from exposure to moisture. Store at room temperature prior to use.
- Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- Proper application of Vexcon material is the responsibility of the installer or user. Telephone consultation and/or field visits by Vexcon personnel are for the sole purpose of making technical recommendations only, and not for providing quality control or supervision on location.

HEALTH AND SAFETY

This product is a gray powder. Continued inhalation of dust over a period of years without proper respirator and ventilation controls may cause silicosis and lung cancer. Use only with safety glasses, respirator, protective gloves and clothing is recommended. Before using product, obtain a copy of the SDS RP135 from your distributor or at vexcon.com.

TECHNICAL DATA

Set Time (Gilmore)

Initial	10 Minutes
Final	18 Minutes

Compressive Strength (ASTM C 109)

1 Hour	1,430 psi
3 Hours	2,081 psi
1 Day	4,850 psi
7 Days	7,350 psi
28 Days	8,225 psi

Tensile Strength (ASTM C 190)

1 Day	580 psi
28 Days	700 psi

Color

Light Gray

Freeze/Thaw Resistance (ASTM C 666)

50 Cycles	Excellent
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Shrinkage/Expansion (ASTM C 157)

28 Days	+0.034%
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Shear Bond (ASTM C 882)

7 Days	1,100 psi
28 Days	1,390 psi

PACKAGING

Certi-Vex Patch AP is available in 50-pound bags. Contact Vexcon directly to discuss your customized packaging requirements.

CONTACT US @

Additional product information, technical assistance and customer services are available by contacting Vexcon Chemicals directly or our distributors.

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WARRANTY

LIMITED WARRANTY: Vexcon warrants for a period of one (1) year from the date of manufacture that the goods supplied hereunder shall be of its standard quality and free of defects, and conforms to (a) Vexcon's published specifications in force on the date of acceptance by Vexcon of the order and (b) the sample which has been made available for testing by buyer prior to sale. Any claim under this warranty must be made in writing to Vexcon Chemicals within sixty (60) days after such non-conformity is first discovered. As the EXCLUSIVE REMEDY for any breach of this Limited Warranty, Vexcon at its option shall replace nonconforming goods or refund the purchase price. Since methods of use and application are beyond Vexcon's control, this Limited Warranty IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THOSE CONCERNING MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THIS LIMITED WARRANTY IS ALSO IN LIEU OF ANY OTHER POSSIBLE LIABILITIES OF VEXCON, WHETHER ALLEGED TO ARISE BY AGREEMENT OR BY OPERATION OF LAW, RESPECTING THE SALE, APPLICATION, USE OR FUNCTION OF VEXCON'S PRODUCTS, INCLUDING BUT NOT LIMITED TO CLAIMS OF NEGLIGENCE, GROSS NEGLIGENCE, MISUSE, STORAGE DAMAGE, MISAPPLICATION, ACCIDENT, STRICT LIABILITY OR ANY OTHER TORT. No person is authorized by Vexcon to assume for it any other liability of any kind in connection with the sale or use of products manufactured and sold by it, and there are no oral agreements or warranties collateral to or affecting any sale or use. All of the foregoing arises under the substantive law of Pennsylvania without regard to principles of conflicts of laws.

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