



INSTANT PATCHING CEMENT

High-performance mix for crack filling and repairing cement

1. PRODUCT NAME

Akona® Instant Patching Cement

2. MANUFACTURER

TCC Materials®

2025 Centre Pointe Blvd.

Mendota Heights, MN 55120 USA

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3. PRODUCT DESCRIPTION

Akona Instant Patching Cement is a high-performance cement used for filling wide cracks and other concrete and masonry repair needs. It sets rock hard in just 90 minutes. Instant Patching Cement self-bonds to all properly prepared concrete surfaces and develops twice the strength of ordinary concrete. For repairs from 1/8 in. (3 mm) to 1 in. (25 mm) per application neat, and can be extended to a maximum of 5 in. (127 mm). Mix with water or for additional strength and adhesion, mix with Akona Concrete Bonding Additive (sold separately).

Features and Benefits

- Fast, controlled set
- High strength
- Ideal for deep repairs
- Mix with water or bonding additive

When/Where to Use

- Interior and exterior concrete repairs
- Steps, sidewalks, slabs, patios, and driveways
- Walls and floors

4. TECHNICAL DATA

Greater than: > Greater than or equal to: ≥ Less than: < Less than or equal to: ≤

Typical Values • Akona Instant Patching Cement

	Mixed with water	Mixed with Concrete Bonding Additive
Initial Set Time	10 minutes	30 minutes
Final Set Time	15 minutes	45 minutes
Compressive Strength ASTM C109 (air dry)		
3 hours	>1,200 psi (8.3 MPa)	> 900 psi (6.2 MPa)
24 hours	> 2,000 psi (13.8 MPa)	> 1,700 psi (11.7 MPa)
7 days	> 5,500 psi (37.9 MPa)	> 3,000 psi (20.7 MPa)
28 days	> 6,500 psi (44.8 MPa)	> 6,000 psi (41.4 MPa)
Slant Shear ASTM C882 modified		
24 hours	> 1,000 psi (6.9 MPa)	> 800 psi (5.5 MPa)
7 days	> 1,500 psi (10.3 MPa)	>1,500 psi (10.3 MPa)
28 days	> 2,500 psi (17.2 MPa)	> 3,500 psi (24.1 MPa)

Length Change ASTM C157 (typical)

28 days, air	< -0.1	< -0.1%
28 days, water	< -0.1	< -0.1%

Note: Test results obtained under controlled laboratory conditions at 72°F (22°C) and 50% relative humidity. Reasonable variations can occur due to atmospheric and job site conditions.

Applicable Standards:

- ASTM C109/C109M Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2 in. [50 mm] Cube Specimens)
- ASTM C157-C157M Standard Test Method for Length Change of Hardened Hydraulic-Cement, Mortar, and Concrete.
- ASTM C191 Standard Test Method for Time of Setting of Hydraulic Cement by Vicat Needle.
- ASTM C882 Standard Test Method for Bond Strength of Epoxy Resin Systems used with Concrete by Slant Shear.
- ASTM C928 Standard Specification for Packaged, Dry, Rapid -Hardening Cementitious Materials for Concrete Repairs.

Meets or exceeds the compressive strength requirements of ASTM C387 for high strength mortars.

Available Sizes

- 10 lb. (4.5 kg) bag (BOM # 102632)

Coverage

- 10 lb. bag fills a 1 in. wide x 1/2 in. deep x 30 ft. long crack (2.5 cm x 1.3 cm x 9.4 m), or 10 sq. ft. (0.9 m²) at 1/2 in. (0.3 cm) thickness
- 10 lb. bag yields approximately 0.09 cu. ft. (0.003 m³) of mortar (neat)

5. INSTALLATION

Preparation

Read all directions before starting work. Proper surface preparation is crucial to achieving a successful application.

1. Remove all loose or unsound materials. Thoroughly clean surface of dirt, dust, grease, paint, or other contaminants before patching, topping, or placing overlays.
2. Holes should be chipped out creating a new substrate to ensure proper bond adhesion.
3. When reinforcing steel is present, it must be free of rust. Mechanical abrasion or abrasive blasting should be used to remove rust from reinforcing steel.
4. Large overhead or vertical patches deeper than 2 in. (51 mm) should contain reinforcing steel. New steel should be inserted using appropriate techniques of none is present.
5. Just prior to application, pre-dampen surface to be repaired with clean water to saturated surface dry (SSD) condition with no standing water remaining.
6. To improve bonding, a "slurry coat" (a thin soupy mixture of Instant Patching Cement mixed with water or bonding additive) can be applied to the pre-dampened surface just prior to placing the trowelable mixture. Apply with gloved hand or brush. Allow the slurry coat to become tacky, but not fully dried. Trowel freshly mixed Instant Patching Cement over the damp slurry coat and finish as required.

Note: It is the responsibility of the installer/applicator to ensure the suitability of the product for its intended use.

Mixing

1. Use cool, potable water, clean tools and clean containers.
For additional bond strength to the substrate, use a concrete bonding additive in place of water.
2. Mix only the amount that can be applied within the 10-20 minute working time.
3. Add approximately 1½ pints (.71 L) of clean, cool water per 10 lbs. (4.5 kg) of powder. (Ratio of approximately 2.4 oz. liquid per 1 lb. powder.) Always add powder to liquid to avoid lumps. Avoid high-speed mechanical mixing which can entrap air into the mixture. Smaller amounts can be mixed by hand. When mixing partial bags, it is a good practice to dry blend the powder in case of settling during shipment.
4. Mix to a uniform, lump-free, putty-like consistency, approximately 2-3 minutes.
5. Warmer temperatures will reduce the working time. The addition of cold water at high temperatures, or warm water in low temperatures will aid in adjusting the mix temperature.
6. For repairs over 1 in. (2.5 cm) thick, add 5 lbs. (2.26 kg) of dry 3/8" pea gravel per 10 lbs. of Instant Patching Cement. Apply pea gravel blend up to 5 in. (127 mm) per layer.

Application

1. Apply using a steel trowel to surfaces that are frost free and above 40°F (4°C) and below 90°F (32°C) within 24 hours of application and 48 hours thereafter. Do not apply in direct sunlight on hot, windy days, or when rain is forecast to fall on the surface within 6-8 hours.
2. To reduce shrinkage and cracking, build up in layers of 1 in. (25 mm) neat, or 5 in. (127 mm) when extended. Additional layers can be applied after 24 hours.
3. Clean the surface of the trowel often with water and use a "light touch" when finishing the surface. Do not over trowel. If a textured finish is desired, brush in one direction with a soft-bristled brush or broom while patch is still soft.
4. Protect the surface from use until patch is completely hard and set. On average, supports foot traffic in 5 hours, wheeled traffic in 24 hours depending upon temperatures and humidity.

Curing

After the patch has reached final set, during the first 24 hours, keep the patch damp or covered to prevent excessive loss of water, especially during hot and/or drying winds or when low humidity are present. Under such conditions, damp cure by covering the surface with wet burlap or towel overnight to retain moisture or lightly fog spray. Note, color may be affected where covering comes in contact with the new patch. After 24 hours, remove covering and allow to air cure. Damp curing is not required when used to repair smaller cracks. Repair can be painted with a latex masonry paint once cured a minimum of 7 days and area remains dry.

Clean Up

Use soapy water to clean hands and tools immediately after use. Dried material must be mechanically removed. Use a waste water hardener (e.g. Congelz™ or similar product) for cementitious waste disposal.

Limitations

- Follow all industry standard safety procedures when handling, such as gloves and eye protection. Wear gloves at all times, failure to do so can result in severe burns.
- Use only clean mixing containers and tools.
- Do not use more than the recommended amount of liquid. Overwatering may cause excessive shrinkage and cracking.
- Do not cover or fill expansion or control joints.
- Do not apply over concrete cured less than 28 days, or is frozen or contains frost.

Safety

READ THE SAFETY DATA SHEET (SDS) BEFORE USING THIS PRODUCT. SDS information is available on our website: tccmaterials.com

Cautions

Read complete cautionary information printed on product container prior to use.

This Product Data Sheet has been prepared in good faith on the basis of information available at the time of publication. It is intended to provide users with information about and guidelines for the proper use and application of the covered Akona brand product(s) under normal environmental and working conditions. Because each project is different, TCC Materials cannot be responsible for the consequences of variations in such conditions, or for unforeseen conditions.

6. AVAILABILITY

To locate Akona products in your area, please contact:

Phone: 1.651.688.9116

Email: info@tccmaterials.com

7. WARRANTY

Seller warrants that its product will conform to and perform in accordance with the product specifications. The foregoing warranty is in lieu of all other warranties, expressed or implied, including, but not limited to those concerning merchantability and fitness for a particular purpose. Because of the difficulty in ascertaining and measuring damages hereunder, it is agreed that Seller's liability to the Buyer shall not exceed the total amount billed and billable to the Buyer for the product hereunder.



Shelf Life	Best when used within one year in original, unopened bags
Storage Conditions	Store dry, cool, out of direct sunlight. Best to condition material to 50-80°F (10°-27°C) before using.
Color	Gray
WARNING: INJURIOUS TO EYES	
KEEP OUT OF REACH OF CHILDREN	

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