

## PRODUCT DESCRIPTION

Akona® Rapid Patch® Concrete Surface Repair is a high strength, fast-setting, low shrinkage patching material for industrial and commercial concrete surfaces, as well as concrete pavements and highway applications. For improved durability, strength, and adhesion, and specifically with shallow repairs, it is recommended to use Akona Mighty Bond® bonding agent (sold separately BOM #103241 1 gal./#102825 5 gal.).

## Specifications

- Meets the requirements of ASTM C928-R2 "Standard Specification for Packaged, Dry, Rapid-Hardening Cementitious Materials for Concrete Repairs" and its related standards.
- MN DOT approved under "Rapid Hardening Materials for Repairs"

## WHEN/WHERE TO USE

- When downtime is critical
- When high early strength and fast setting is required
- Use for patching concrete slabs
- Concrete leveling and underlayment's

## ADVANTAGES

- Fast-setting patching material
- Easy to mix and handle
- Excellent freeze/thaw and salt resistance properties
- Excellent low-shrink properties

## AVAILABLE SIZE

- 50 lb. (22.7 kg) bag (BOM #102896)

## COVERAGE

- 1 lb. will yield 1 sq. ft. at 1/8 in. thickness (0.09m<sup>2</sup> per 0.45 kg at 3 mm)
- 50 lb. (22.7 kg) bag yields approximately 1/2 cu. ft. (0.014 m<sup>3</sup>)

## PREPARATION

Read all directions before starting work. Proper surface preparation is crucial to achieving a successful application. The surface should be prepared according to procedures outlined in the American Concrete Institute (ACI) 546R-14, "Guide to Concrete Repair" or the International Concrete Repair Institute (ICRI) Technical Guideline Number 310.1R-2008, "Guideline for Surface Preparation for the Repair of Deteriorated Concrete Resulting

from Reinforcing Steel Corrosion." All surfaces must be rigid and structurally sound. Remove all dust, waxes, sealers, old adhesive residue, curing compounds, oil, or other foreign materials prior to application. For deep repairs, make a 2" (5 cm) vertical cut around perimeter of repair area and prepare as described above.

## MIXING

### For shallow/thin repairs (< 1" thick):

Mix 1/2 to 3/4 gal. (1.9-2.8 L) of Akona Mighty Bond® bonding agent and up to 1/2 gal. (1.9 L) of potable water per 50 lb. (22.7 kg) bag of Rapid-Patch Concrete Surface Repair to form a workable mix.

### For deep repairs (> 1" thick):

- Step 1: Add 3/4 to 1 gal. (2.8-3.8 L) clean water to a portable mixer.
- Step 2: Add aggregate using 25 lb. (11.3 kg) of 3/8" (9.5 mm) minus aggregate per 50 lb. (22.7 kg) bag of powder.
- Step 3: Add 50 lb. bag of Rapid Patch Concrete Surface Repair.
- Step 4: Mix for one minute until lump-free (if necessary, add additional water for desired consistency).

## APPLICATION

Apply only to surfaces that are frost free and above 40°F (4°C) and below 100°F (38°C) within 24 hours of application and 72 hours thereafter. Prior to material placement, dampen the area to be repaired with clean water to a saturated-surface-dry (SSD) condition leaving no standing water. Improved bond may be achieved by mixing a slurry coat consisting of the Akona Patch Concrete Surface Repair powder and Akona Mighty Bond bonding agent to a pancake batter-like consistency and brushing it around the area to be repaired. The repair should be made before the slurry coat dries. Do not add aggregate (sand and rock) for thin repairs. When using Akona Mighty Bond bonding agent, the initial set may be extended up to 1/2 hour.

## CURING

For deep, shallow, and thin repairs:

- Do not wet-cure patches modified with Akona Mighty Bond bonding agent. compounds over patching materials for a minimum of two weeks.



- Protect patches from rapid drying on hot, windy days.
- Protect surface from rain for 24 hours.

## CLEAN UP

Use warm, soapy water for cleaning hands and tools while product is wet. Hardened material requires mechanical removal.

## FOR BEST RESULTS

- Applications with job-site aggregate added are not covered under ASTM C928-R2.
- Shade and protect patch in windy and/or hot weather conditions
- Use potable water for mixing
- Clean trowel frequently during application
- Do not over-work or over-trowel
- As with all cementitious materials, avoid contact with aluminum to prevent adverse chemical reactions and possible product failure.
- Rapid Patch Concrete Surface Repair should be installed in accordance with local building code provisions and all applicable ASTM standards. Good workmanship and proper detailing and design assures durable, functional, watertight construction.



## Technical Data—Typical Values

Tests Performed	Rapid -Patch™ Concrete Surface Repair	ASTM C928-R2 Requirements	Typical value when mixed with 3/8" minus aggregate
<b>Flow (ASTM C239)</b>			
Percentage	155%	NA	140%
No. of drops	9	NA	19
Consistency after 5 min	155% @ 15 drops	100% min. @ 25 drops	130% min. @ 25 drops
<b>Set Time (ASTM C230)</b>			
Initial (hrs:min)	:33	NA	:37
Final (hrs:min)	1:08	NA	1:10
<b>Compressive Strength, psi (ASTM C109)</b>			
3 hour	1,580	1,000 min.	1,950
24 hour	3,480	3,000 min.	3,000
7 day	4,110	4,000 min	4,000
28 day	5,790	NA	3,930
<b>Tensile Strength, psi (ASTM C190)</b>			
Average	485	NA	416
<b>Bond Strength, psi (ASTM C882)</b>			
1 day	1,100	1,000	1,040
7 day	1,510	1,500 min.	1,500
<b>Scaling Resistance to Deicing Chemicals after 25 Freeze/Thaw Cycles (ASTM C672)</b>			
Concrete, Visual Rating	NA	2.5 max.	1
Mortar, Scaled Material	.17 lb. per sq. ft.	1 lb. per sq. ft.	NA
<b>Length Change, % 28-day in water</b>			
A	0.063	0.047	Allowable increase after 28 days in water +0.15
B	0.062	0.045	
C	0.062	0.046	
Average	0.062	0.046	
<b>Length Change, % 28-day in air</b>			
A	-0.037	-0.008	Allowable decrease after 28 days in air: -0.15
B	-0.036	-0.004	
C	-0.037	-0.006	
Average	-0.037	-0.006	

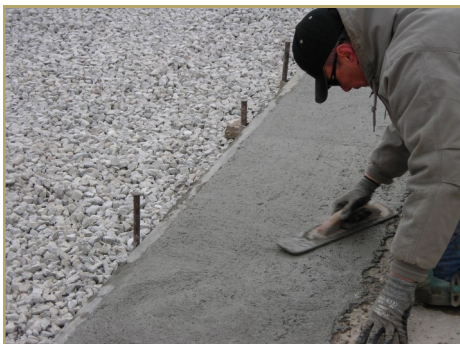


### WARNING

Always read the product SDS and cautionary statements on product container prior to application. Wear proper protective gear as advised on the label and/or SDS. Wash hands thoroughly with warm, soapy water after handling or before eating. Do not take internally. **KEEP OUT OF REACH OF CHILDREN.**

### 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 to the Buyer for the product hereunder.



WARNING: INJURIOUS TO EYES

KEEP OUT OF REACH OF CHILDREN

Shelf Life	One year in original, unopened bags
Storage Conditions	Store dry at 40-95°F (4°C – 35°C). Condition material to 65-75°F before using.
Color	Gray
Batching Method	Per ASTM C387