

Fast Set Concrete Repair TECHNICAL DATA

PRODUCT DESCRIPTION:

Fast Set Concrete Repair is a two-component, polyurethane purposely designed with an ultra-low viscosity to quickly repair hairline cracks, spalls, and holes in concrete. With its fast curing properties, it comes to a full cure in one hour, and can be used in temperatures from 0 °F to 110 °F (-18 °C to 43 °C). **RECOMMENDED FOR:** Used to quickly repair interior/exterior hairline cracks, Spall and crack repair when mixed with aggregate (like sand), Industrial floor repair applications with high volume traffic, Parking structures and concrete bridge repair. **ADVANTAGES & FEATURES:** The self-leveling, ultra-low viscosity provides deep penetration resulting in an excellent bond. This product reaches over 4,500 psi in one hour. No mixing is required as it comes in a 22 oz double cartridge which mixes itself in the nozzle. Can be applied at temperatures ranging from 0 °F to 110 °F. Repaired cracks and spalls can be opened to traffic in less than 60 minutes at 77 °F (25 °C).

SOLIDS BY WEIGHT: Nearly 100%

VOLATILE ORGANIC CONTENT: 13 grams per liter

STANDARD COLORS:

Part A (Resin) Light Orange: Part B (Hardener) Black,
Mixed Color when cured - Gray

RECOMMENDED THICKNESS:

This material can be applied at any thicknesses with the use of any dry sand aggregate.

COVERAGE PER UNIT:

Coverage is dependent on crack size and the amount of aggregate sand used. One cartridge set will repair approximately 100 feet of ¼" x ¼" cracks in a concrete floor.

PACKAGING	CUBIC INCHES
300ml x 300ml	36 (approx.)

Packaged as a double cartridge system with two 300ml cacartridges per set.

MIX RATIO: 1:1 by volume

SHELF LIFE: For best results, store between 40 °F (4 °C) and 90 °F (32 °C). Shelf life is 12 months when stored in unopened containers in dry conditions.

SHORE D HARDNESS: 70 @ ASTM D2240

TENSILE STRENGTH: 3,485 psi @ ASTM D638

ELONGATION: 18% @ ASTM D638

IMPACT RESISTANCE: Excellent

ABRASION RESISTANCE: Excellent

COMRESSIVE STRENGTH:

5,102 PSI @ ASTM D695 (without aggregate)

BOND STRENGTH: 1,894 psi @ ASTM C882

DOT CLASSIFICATION:

Part B "not regulated"

Part A "not regulated"

VISCOSITY: 60 cP mixed – typical

PRIMER: None required

TOPCOAT: None required. However, many types of products can be used as coatings or overlays for the area that has been patched.

CURE SCHEDULE (75 Degrees F)

Working Time	2 minutes
Full Cure	1 hour

CURE SCHEDULE (0 Degrees F)

Working Time	11 minutes
Full Cure	24 hours

1. Working and full cure times are approximate, may be linearly interpolated between listed temperatures and are based on cartridge/nozzle system performance.
2. Application Temperature: Substrate and ambient air temperature should be from 0 to 110 °F (-18 to 43 °C).
3. All tests performed in a neat condition (without aggregate added.)
4. Cartridge and nozzle should be maintained at temperatures above 30 °F (-1 °C) while in use.

WARNING:

DO NOT POINT TUBES UPWARD AFTER THE MIXING NOZZLE HAS BEEN ATTACHED AND PRODUCT HAS BEEN DISPENSED THIS MAY CAUSE THE MATERIAL TO FLOW BACK INTO THE TUBES AND CAUSE CLOGGING OR GELATION.

Thinning with solvents will destroy the product.

NOT intended for repairing cracks subject to movement (eliminate the cause of cracking prior to repair)

NOT intended for aesthetic finishes as product may develop a greenish tint from UV exposure or may cure with an uneven color - when cured it is usually coated or painted to meet desired appearance

New concrete should be a MINIMUM of 21 days old prior to crack repair. The moisture has to leave your slab.

Additional care should be taken when injecting into cracks below grade and/or below 32 °F (0 °C).

This product is highly sensitive to and reactive with moisture and therefore, the cementitious substrate must be completely dry prior to application.

See following pages for application instructions and folow them closely.

The test data is based on Fast Set Concrete Repair which was not mixed with sand unless otherwise noted. Physical properties are typical values and not specifications. See following pages for limitations of our liability and warranty.

MIXING AND APPLICATION INSTRUCTIONS: Fast Set Concrete Repair

STORAGE and SHELF LIFE: For best results, store between 40F - 90F. The shelf life is 12 months if unopened and stored in dry conditions. Do not Freeze.

INSTALLATION INSTRUCTIONS: NOTE: Reaction with trace amounts of moisture may cause Fast Set Concrete Repair to expand, create a foam and could raise the product as it cures above the substrate's surface. Common solutions include shaving with a stiff metal scraper, floor knife or grinding it flush with the floor.

- Product is initially dark gray/black when mixed, but will turn gray upon curing
- Many applications are finished by sanding or grinding the surface smooth
- Always wear proper personal protective equipment, such as dust mask/respirator, safety goggles, and gloves while sanding or grinding (see Safety Data Sheet)
- INTERIOR APPLICATIONS: Some color variation may occur during the curing process
- EXTERIOR APPLICATIONS: Product may develop a green tint after long-term UV exposure; Application of a coating or paint are common solutions for improving aesthetic appearance
- Always complete a compatibility test on a small area prior to full application of any coating

CRACK REPAIR PREPARATION:

1. Clean the crack by wire brushing.
2. Blow out with compressed air, or vacuum until the crack is free of dirt and debris
3. It is not necessary to widen or open a crack unless you suspect it is very deep and want to insert backer rod or kiln-dried sand deep into the crack to control loss of the product

Cartridge Preparation:

1. Shake the cartridge vigorously for 20 seconds, then stand cartridge upright for at least 1 minute allowing any bubbles to rise to the top.
2. Insert cartridge into the dispenser. Make sure it is properly positioned with the **shoulder of the cartridge** flush with the front/top bracket of the dispenser. Point upward at about a 45° angle.
3. Remove the plastic cap and plug from the top of the cartridge. Find the flow control inside the threaded end of the mixing nozzle. Insert flow control into the two holes at the top of the cartridge where the product comes out. Make sure it is securely seated in place.
4. Install the mixing nozzle onto the cartridge. Continue pointing the nozzle upward away from yourself and others while slowly applying pressure to the trigger moving any bubbles and product up through the nozzle until it reaches the tip. **CAUTION:** Never point mixing nozzle toward yourself or others while dispensing, as low viscosity materials can shoot out from the end of the nozzle if the trigger is squeezed too rapidly.
5. Dispense a small amount of material into disposable container or rag. The cartridge is now balanced and ready for use. **NOTE:** The cure time for this product is extremely short, so be prepared to fill any cracks you need before the material cures in the nozzle. If the product does harden in nozzle, replace the nozzle and repeat the cartridge balancing steps listed above. Never transfer a used nozzle to a new cartridge. Never point a tube set either during assembly or during application toward eyes or body as gun pressure can cause material to eject with force for several feet.

CRACK REPAIR PROCEDURES

1. In horizontal concrete, inject directly into cracks by placing the mixing nozzle tip directly over the crack. Allow the material to penetrate into the crack. Kiln-dried medium grade silica sand can be poured on top of the fresh material to add texture or to more closely match the appearance of the existing concrete.
2. For larger, deeper cracks, first insert a layer of kiln-dried sand into the crack to eliminate excessive loss of material. The layer of product must still be at least 1/2 in. (13 mm) deep on top.
3. The repair will be tack-free in less than 10 minutes at 75 °F (24 °C). Excess material may be removed shortly after application by scraping with a blade. The crack surface may also be ground smooth one hour after application. See SDS for precautions while grinding.
4. Allow the material to fully cure before subjecting repaired area to any type of traffic (see Table 3 for working and full cure time schedule).

SPALL REPAIR PROCEDURES

1. Spall repairs can be made with neat material or using a repair mortar.
2. To form a repair mortar, Fast Set Concrete Repair should be mixed with kiln-dried medium grade silica sand.
3. For the best results have all your equipment and materials prepared before mixing. The ratio of sand to mixed material should be between 1-3 parts of sand to 1 part of mixed product. To find your best option, test several ratios to select the ratio of sand to liquid to get your desired results. Pre-measure the sand needed based on the volume of mixed Fast Set Concrete Repair.
4. When using cartridge product for spall repair, squeeze the desired amount of liquid from the cartridge into a mixing container and swiftly add the pre-measured sand. Make sure all the sand is saturated and there are no "clumps" on the bottom of the bucket. Rapidly scrape bottom and sides of pail to assure good mix. Be sure to use clean containers when mixing multiple batches.
5. After mixing the Fast Set Concrete Repair at 75 °F (24 °C), it must be dispensed within 5 minutes. In hotter temperatures, dispense the product in less than 5 minutes.
6. Rapidly pour and trowel (do not over trowel due to the fast cure of the product).
 - a) Only mix the quantity that can be mixed/placed within 5 minutes (maximum of 1 gallon at a time).
 - b) Repairs should be from a minimum of 1/2 in. (13 mm) up to a maximum of 3 in. (76 mm) per lift to avoid cracking from the high heat exothermic reaction.

NOTICE TO BUYER: DISCLAIMER OF WARRANTIES AND LIMITATIONS ON OUR LIABILITY

*We warrant that our products are manufactured to strict quality assurance specifications and that the information supplied by us is accurate to the best of our knowledge. Such information supplied about our products is not a representation or a warranty. It is supplied on the condition that you shall make your own tests to determine the suitability of our product for your particular purpose. Any use or application other than recommended herein is the sole responsibility of the user. Listed physical properties are typical and should not be construed as specifications. **NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, REGARDING SUCH OTHER INFORMATION, THE DATA ON WHICH IT IS BASED, OR THE RESULTS YOU WILL OBTAIN FROM ITS USE. NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, THAT OUR PRODUCT SHALL BE MERCHANTABLE OR THAT OUR PRODUCT SHALL BE FIT FOR ANY PARTICULAR PURPOSE. NO WARRANTY IS MADE THAT THE USE OF SUCH INFORMATION OR OUR PRODUCT WILL NOT INFRINGE UPON ANY PATENT.** We shall have no liability for incidental or consequential damages, direct or indirect. Our liability is limited to the net selling price of our product or the replacement of our product, at our option. Acceptance of delivery of our product means that you have accepted the terms of this warranty whether or not purchase orders or other documents state terms that vary from this warranty. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sale of our products. Our products contain chemicals that may **CAUSE SERIOUS PHYSICAL INJURY. BEFORE USING, READ THE MATERIAL SAFETY DATA SHEET AND FOLLOW ALL PRECAUTIONS TO PREVENT BODILY HARM.***

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