

Detailed FLATWORK Application Instructions

Site Preparation

Ensure that Surface is Clean: It is important to remember that even with FlexKrete's phenomenal bond, it will only be as strong as what you are bonded to. Therefore, remove any dirt, loose debris, paint, sealants, oils, or other contaminants to produce a clean, dry rough, finish. The concrete will actually look white when it is properly cleaned. It is useful to have small tools to chip away loose concrete or clean the area with an angle grinder equipped with a diamond cup wheel or cup stone if necessary.

Ensure that Surface is Dry and Prepared Properly: It is important to remember that FlexKrete is a chemical process, and although superior, is very different than waterborne cement based materials. The area must be completely dry or use FlexPrime before you apply the FlexKrete slurry. If the area is damp, you can use a thin coat of FlexPrime, or simply torch the repair area dry with a propane weed burner. If you opt to use the torch method, you must ensure that the concrete is completely dry and that moisture will not migrate back into the repair before the FlexKrete sets up.

Final Preparation: Now that you have completed the most time consuming part of the FlexKrete repair, now is a good time to sweep up and bag all the debris. You will want to also use a leaf blower to get all the remaining dust and grit out of the cleaned area. In final preparation for your installation, if you want to have crisp borders and a professional looking "full-depth-repair look", you will want to use duct tape to symmetrically tape off around the repair.

Mixing and Applying FlexPrime

Estimate Amount of FlexPrime: You are going to mix enough FlexPrime to paint a VERY THIN coat that completely covers the concrete and voids within the repair area. A simple way to estimate the amount needed is to estimate approximately 300 square foot of coverage per gallon. (i.e. 2.5 sf. an ounce) (38 sf. a pint) (75 sf. a quart)

Mix and Apply FlexPrime: Mix equal parts of A & B for 3+ minutes, and apply a VERY THIN COAT with a brush, roller, or spray. Make sure that the FlexPrime is not puddled at all. If the surface is very rough you may need to take a dry brush to thin out any puddles or ridges. If you are priming a lot of area on a hot day, try to only mix up enough FlexPrime that can be applied within 15 minutes. If the FlexPrime starts to thicken up DO NOT apply it DISCARD.

Mixing and Applying FlexKrete

Estimate The Volume of FlexKrete Slurry Needed: The simplest method is to look at the repair and estimate the volume of sand required to completely fill the void out to the tape, and then divide by 3 or 3.5 to determine the amount of FlexKrete needed. For example, a one gallon sized hole $\div 3.5 =$ A little more than a Quart of FlexKrete (35 ounces) to 3.5 Quarts of Sand) or (A four gallon sized hole $\div 3.5 = 1.2$ gallons of FlexKrete (150 ounces) to 3.5 gallons [50lbs] of sand)

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Mix FlexKrete Slurry: Measure out the amount of FlexKrete needed into a mixing container, then add the recommended amount of catalyst (or less) as stated on the catalyst bottle. Do not use less than 25% of the recommended amount of catalyst - FlexKrete will not set up without catalyst. You will need to power mix for 30 seconds to 1 minute. The longer you mix it the faster it will set up. When fully mixed/catalyzed, then power mix in 3 to 3.5 parts of clean, dry, medium to course grade blasting sand until it is thoroughly blended. To buy yourself more workability time, you will want to immediately pour the slurry on the repair area rather than leaving it in the bucket. It is also a good idea to get all of the residual slurry out of the bucket with your trowel so you can easily re-use the bucket.

The Set Time Speed: Varying the amount of Catalyst and mixing times can regulate the set time speed. At 70 degrees, FlexKrete will set completely in one hour using the recommended ratios and one minute mix time. At 100 degrees it will cure in the same amount of time with as little as 1/2 of the recommended ratios. At zero degrees, FlexKrete will set completely in one hour using the recommended ratio of Catalyst and the recommended ratio of **FlexTemp Additive**. At 70 degrees, if you use the full amount of Catalyst and FlexTemp Additive, FlexKrete will set completely in about 10 minutes!

Trowel Slurry: After pouring the slurry out of the bucket onto the repair area, you will first compact the slurry into all the voids, then use your trowel at a moderate pitch, to screed the slurry over the entire repair slightly above grade. To finish trowel, you will work in one direction, keeping the trowel at a low pitch, and applying downward pressure as you slick off the top. This process should only take one or two passes. As you pull the slurry off of the tape with your trowel, you will be able to see if your repair is close enough to grade – if not try one more pass to ensure the repair is not sticking up too high. The troweling process is more like spackling than floating concrete.

Remove Tape and Clean Up: You should pull the tape before the repair is set up. You can also spend these few minutes before opening the repair to traffic by cleaning up the area. If you have spills or primer outside of the taped area, you can easily clean it up with acetone, or simpler yet, by throwing a small amount of sand on the spot and using a hand stone or cup wheel to scuff it off. Retain Expansion Joints: Concrete slabs weigh many thousands of pounds and are designed with joints for inevitable ground movement and shifting. It is important for installers to retain any expansion joints or movement cracks, otherwise you may have failures of the surrounding concrete or FlexKrete repair. Since FlexKrete sets up fast, you can also fill the joint with elastomeric sealer right away. There are several simple methods for retaining worry free expansion and movement joints in FlexKrete repairs.

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There are several simple methods for retaining worry free expansion and movement joints in FlexKrete repairs. **Trowel Cut:** Some applicators use their trowel or joint tool to press a joint

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through the repair before it gets hard. **Blade Cut:** Since FlexKrete sets up so quickly, it is just as simple and crisper looking, to snap a chalk line, and use a standard skill saw with a masonry blade to re-cut the joint or crack after the repair has set up. **Expansion Joint Strips:** You can insert fiber joint strips into the repair before you apply the slurry, then when the repair has set up, you can either pull the joint strips out or cut them to grade and leave them in place.

Open Repair to Traffic: With FlexKrete you should never have to leave cones!!! To check whether the repair has set up, find an inconspicuous area to touch and/or check any leftover bits of slurry. When FlexKrete is completely hard to the touch, it is ready for traffic. On cooler days it is possible for the top of the FlexKrete to remain a little bit sticky to the touch for a while after it is hard enough to drive on. To prevent the repair from picking up dark tire and road grit, you can just sprinkle some sand or dust from the joint cutting on top of the repair.