

Specification
ARCRETE Concrete Reconstruction
01-02 rev. 3

Surface Preparation:

- Remove all loose & damaged concrete;

- Remove scale &/or corrosion from existing rebar supports (wire brush, grind);

- Brush & vacuum to remove all residual material/dust;

Form Setup: (if Applicable)

- Construct plywood form around area to be rebuilt;

- Line the inside of the form with a polypropylene sheet which will keep the ARCRETE from adhering to the plywood (a mold release agent can be used in place of the poly but is not recommended if the finished surface is to be coated) .

- It will be difficult to adhere the poly to the plywood so it is generally best to set the poly up against the plywood and add some ARCRETE to hold it in place.

ARCRETE Prime:

- Mix a small amount of ARCRETE to use as a primer. The ARCRETE mixes 2 parts to one part by volume so any small containers or cups can be used to break down the ARCRETE.

- Use a brush to wet out all surfaces, concrete and rebar, with unfilled ARCRETE.

- There is no need to wait for this prime coat to set before adding filled ARCRETE.

ARCRETE Rebuild:

- Use a large plastic mixing trough (metal can be used but plastic is cheap & you will only get one job out of whatever is used). . For large areas mix in a poly-drum mixer.

- Add the ARCRETE Activator to the ARCRETE Base and mix with drill using a mixing blade (can mix by hand).

- Pour (1) 20 lb bucket of Quikrete or Sakrete General Purpose Sand into mixing trough. You can also use mortar mix or any other type of concrete aggregate. The finer the aggregated the denser the ARCRETE. For highest compressive strength use mortar sand.

- Add approx. 1/2 of mixed ARCRETE. Mix with trowels ect. It is best to have a couple of people mixing at one time. Remember, there is no solvent in ARCOR so once you mix the curing starts.

- Once the filler is wetted add additional filler and more ARCRETE. The goal here is to end up with a mix that is somewhat stiff but still completely wet out with resin. If you are filling a large area that is elevated and the mix is too loose or soupy, some can run out the bottom of the form. It also will take more resin to fill the void, hence an increase in

cost. A 'brown sugar' granular consistency is good for filling large areas.

A 1 gallon mix of ARCRETE with 60 lbs of Quikrete Sand makes a good general use mix and yields about 5 gallons. For a dry mix use 70-80 lbs of sand or mortar mix. This will yield 7-9 gallons and the sand/mortar mix will compact well and provide a high compressive strength.

- Epoxies cure in an exothermic reaction i.e. they release heat when curing. If you will be filling a large void the concern will be to not fill too much volume at one time to prevent boiling/bubbling over of the material (referred to as an exotherm). Mix and install up to three batches of filled ARCRETE then wait for 1/2 hour and see how hot the forms become i.e. too hot to touch?, and if there appears to be any noticeable bubbling or steaming. If you are not sure wait another 1/2 hour. If no problems appear then continue to mix and install two more mixes of filled ARCRETE. Continue to check for signs of an exotherm and continue to add two mixes of ARCRETE at a time.

- Allow the ARCRETE to set 4-12 hours. Cure is dependent on temperature and humidity so it can vary widely. The most important aspect here is that the ARCRETE has cooled and is hard to the touch before removing the forms. If in doubt wait. The overcoat window is 24-48 hours so you don't need to rush it unless outage considerations warrant.

- Once the forms are removed the ARCRETE is ready to coat immediately.

Coating with EE-11(or other recommended ARCOR Coating):

- There will likely be voids present in the concrete and the ARCRETE surfaces. Apply an initial coat of VICOR EE-11 by roller. We recommend a 1/8" nap. As one man rolls have one or two others go over the roller coated areas with the hard yellow squeegees we provide working in the coating to fill the voids. You will need to go over an area several times with the squeegee alternated direction to get a good fill. Do not leave ridges. Try to leave the coat as smooth as practicable.

- Allow this first coat to cure for 2-4 hours (up to 12 hours if needed for work shift considerations,) or until dry to the touch, before adding a second coat. Cure time is highly dependent upon temperature and the above times are at 70-75°F. Longer if cooler, shorter if warmer. You want the EE-11 dry to touch and dry enough that you cannot move the coating if you twist your thumb in it, but not so dry that you can't put a thumbnail imprint into it. If you have heat guns they can be used to force the cure shortening the time between coats.

- Roller apply the second coat of EE-11 to get a smooth even finish with no visible pinholes or voids. Any areas that did not get primed and rebuilt with ARCRETE may require a third coat if pinholes are evident.

-End-