CONCRETE
AQUA GUARD

Concrete Aqua Guard Crack and Joint Repair Instructions

Repairs Without Flowing Water

Application Instruction 1003

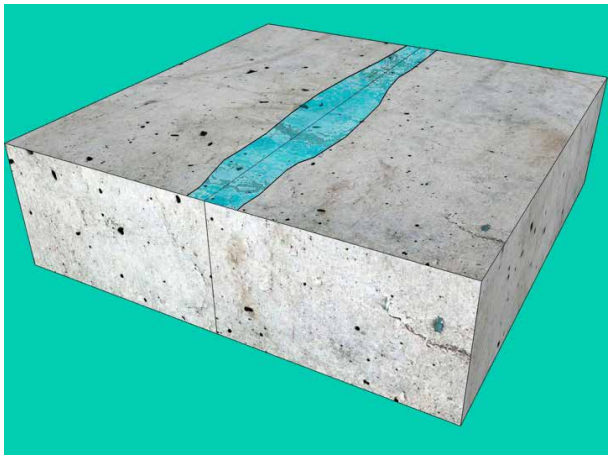
Concrete Aqua Guard Existing Crack and/or Joint Repair Instruction is specifically focused on the repair of existing cracks and construction joints and is considered an important part of the preparation process for all repairs.

Material Needs

- Crystal Slurry
- Crystal Grout or Grout F
- M60 Grout
- Clean mixing tools / pails
- Clean water for mixing
- Chipping, chiseling or routing equipment
- 2.5 cm margin trowel
- Natural bristle concrete brush
- Safety goggles
- Rubber Gloves
- Measuring tools (by volume)
- Water sprayer

Step 1: Clean the area

Clean the complete concrete surface area insuring the crack or joint is completely visible. The surface area must be clean of all old surface contaminants such as oil, paints, epoxies, curing agents, form oils, grease, bitumen and laitance. There are several forms of mechanical surface preparation systems that may be used they include high pressure water blasting, sandblasting, scarifying, sanding, and shot blasting. The best systems to use are water blasting and sand blasting (however circumstance do not always allow the use of these systems).



Step 2: Chisel Chip or Route a U Channel

Chisel, Chip or Route out all cracks to a depth of 3.5 cm, and a width of 2.5 cm insuring that the cavity is U-shaped (rectangular not square). It is important that you do not use a V-shaped cavity as it lacks the bonding integrity of the U-shaped channel. Saw cutting is not recommended as it plugs the pores and capillaries.



Insure that all cracks are channeled at least 10 cm beyond the visible end of the crack. In areas in which structural reinforcing steel does not allow 3.5 cm consistently, chip or chisel or

route the concrete on both sides of the steel to the appropriate depth and clear the area over the steel to whatever depth is allow by the placement of the steel.

Step 3: Clean the repair area and saturate well

Clean the chase well removing any loose concrete and spray thoroughly with water the entire area. Insure that the concrete repair area is thoroughly soaked not just dampened.

Remove all pooled water as Concrete Aqua Guard products require the concrete at an SSD condition (Saturated Surface Dry), meaning the concrete is to be very wet inside, but the surface is not to have pooled water.

Step 4: Apply M60 Grout

Using a clean pail mix M60 Grout to a dry putty consistency (5 parts powder and 1 part water). Using gloves place with your hands or place with a trowel M60 Grout ensuring that it does not exceed ½ of the chase height.



Using the 2.5 cm margin trowel pack the mixture firmly into the chase. Using a stiff bristled brush wipe the surface area gently ensuring a slightly rough surface. Mix only what can be placed in 15 minutes.

When applying keep firm hand pressure on the repair area until the plug has hardened. Ensure that M60 Grout does not exceed 1/2 of the channel height.

Clean and wet the application area insuring that all standing surface water is removed.

Step 5: Apply Crystal Grout or Grout F into the Channel

Using a clean pail mix Crystal Grout or Grout F (your Concrete Aqua Guard representative can assist you to which grout is best for your application) into a putty consistency (4 parts powder and 1 part water). Using gloves place with your hands or place with a trowel Crystal Grout until the full length of the channel has been filled. Using the 2.5 cm margin trowel to pack the mixture firmly into the chase. Using a stiff bristled brush wipe the surface area gently insuring a slightly rough surface. Mix only what can be placed in 15 minutes.



Step 6: Wait for Initial Set of Crystal Grout or Grout F

When the Crystal Grout or Grout F has fully set (roughly 1 hour from completion of application) clean and wet the entire surface area to an SSD condition.

Step 7: Apply Crystal Slurry



Mix Crystal Slurry to a brushable slurry consistency using 5 parts powder to 2 parts clean water.

Using a natural bristle concrete brush coat the entire area using an aggressive circular motion and covering the entire surface area.

Step 8: Allow the Surface Application to Dry

Allow one to two hours for the Crystal Slurry surface application to dry. Carefully soak the application area (insuring that the water is without pressure and does not wash away the previously applied Slurry application area).

Keep the area damp for a minimum of 48 hours. If conditions allow extend the wetting for 7 days. Protect against sun, wind and rain for a minimum of 48 hours

NOTES: Do not acid etch
If surface is too smooth, it must be roughened slightly for better adhesion.