

## SEALING OF CRACKS AND FAULTY CONSTRUCTION JOINTS

(TO BE READ IN CONJUNCTION WITH PRODUCT DATA SHEETS)

### PRODUCTS

Xypex Concentrate

Xypex Patch'n Plug

Xypex Gamma Cure



### GENERAL:

This Method Statement details the products and procedures to treat cracks or faulty concrete construction joints.

### SURFACE PREPARATION:

Form a rout along the entire length of the crack or construction joint to approximately 25mm wide by 25mm to 37mm deep (it is advised that the larger the volume of the flow the deeper the rout depth to aid in ease of repair).

If the joint is a floor wall joint, ensure the rout intersects both the floor and the wall sections of the concrete.

The rout should be preferably dovetail, square or as close to a "U" shape as practical. A "V" shaped rout is not acceptable.

Thoroughly clean the rout of all loose material and saturate the rout area. Xypex requires a Saturated Substrate and Damp surface (SSD). Concrete surfaces must be thoroughly saturated with clean water prior to the application. Remove excess surface water before the application. If concrete surface dries out before application, it must be re-wetted.

### APPLICATION:

#### No water flows present

1. Mix **Xypex Concentrate**, five (5) parts powder to two (2) parts clean water into a slurry and brush apply to the base of the rout, at a coverage rate of approximately **0.8 kg/m<sup>2</sup>**. The coating must be uniformly applied and approximately 1.25mm thick.
2. Allow the **Xypex Concentrate** slurry to reach initial set, mix **Xypex Concentrate**, six (6) parts powder to one (1) part clean water, as a dry pac and compress into the rout with a hammer and block or pneumatic packing device to an approximate depth of 15mm.
3. Remove any residual product from exposed sides of rout.
4. Apply a fine mist spray of water to seal the surface of the dry pac.
5. Mix **Xypex Patch'n Plug**, three and a half (3.5) parts powder to one (1) part clean water into a stiff putty and apply to the rout to return to profile. Allow a minimum of one hour to set and to cool.
6. Mix **Xypex Concentrate**, as above, into a slurry and apply over the repaired area at the rate of approximately **0.8 kg/m<sup>2</sup>**. The coating must be uniformly applied and approximately 1.25mm thick.
7. Cure by mist spraying three times daily for two to three days. If this process is impractical apply a mist of **Xypex Gamma Cure**. Mix three (3) parts water to one (1) part **Xypex Gamma Cure**.

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## Low volume, low pressure flows

- Mix **Xypex Patch'n Plug**, three and a half (3.5) parts powder to one (1) part clean water into a stiff putty. Apply **Xypex Patch'n Plug** to approximately half the depth of the prepared rout.

The **Xypex Patch'n Plug** should be applied to the full length of the crack or joint. Hold in place by hand, while the material sets, and the flow of water ceases.

- Undertake steps 1 to 7 above.

## High volume flows

**Note:** In areas of the crack or joint where flows are either not present or are low volume flows, treat these areas prior to moving to the next step. That is, undertake step 8 above in those areas.

- In the remaining areas where high water flows are present through the crack or joint, mix **Xypex Patch'n Plug** as above and form into plugs, by rolling the putty in gloved hands, to approximately the size of the rout (typically in a "carrot shape").
- Allow the plugs to harden, for a minimum of 30 minutes, and compress into the base of the rout with a hammer and block until the water flow stops. This may require more than one attempt.
- Once flows are stopped continue with repair as per steps 1 to 7 above.

## High volume, high pressure flows

- Identify areas or points of high flow along crack or joint. At these points position a "bleeder" hose/tube of a size applicable to the flow volume, and of a size that will fit within the rout. Install the "bleeder" by applying **Xypex Patch'n Plug** around base of the "bleeder" and into rout area. Ensure that water is primarily flowing through the "bleeder". Hold into position until material sets. It may be necessary to apply more than one batch of **Xypex Patch'n Plug** to attain a firm fit for the "bleeder".
- Continue with step 8 and if required steps 10 and 11.
- Once all flows are stopped, allow as long as possible (minimum one hour) and then carefully remove the "bleeder". Proceed with steps 10 and 11 to plug resultant hole.

**Note:** A "bleeder" hose is of sufficient length that the water can be directed away from the work area. It should be smooth surfaced, fairly rigid tubing, for example a garden hose.

- Continue repair with steps 1 to 7 above.

## DISCLAIMER

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