

Xypex Crack & Joint Repair

Application Procedures

Surface Preparation

Concrete surfaces to be treated must be clean and free of laitance, dirt, film, paint, coating or other foreign matter. Surfaces must also have an open capillary system to provide 'tooth and suction' for the Xypex treatment. If the surface is too smooth (e.g. where steel forms are used) or covered with excess form oil or other foreign matter, the concrete should be lightly sandblasted, water blasted, or etched with a suitable strength hydrochloric acid solution. (Note: Choice of method of surface preparation subject to approval by relevant authorities) If the relevant overseeing authority permits acid etching, surfaces that are to be acid etched should be dampened with water before applications of acid. After acid etching, flush concrete thoroughly with clean water.

Mixing Procedure

Xypex Concentrate Dry-Pac is mixed by adding one part clean water to six parts Xypex Concentrate powder by volume to a dry lumpy consistency. (Mix only as much as can be applied in 15 minutes)

Xypex Patch'n Plug is mixed by adding one part clean water to 3.5 parts Patch'n Plug powder, by volume, to a dry lumpy consistency. (Mix only as much as can be applied in 3 minutes)

Xypex Concentrate Slurry Coat

- Mix material by volume with clean water that is free from salt and deleterious materials.
- Mixing is usually carried out using a paddle on a slow speed electric drill (250 RPM), or with other equipment that ensures adequate mixing.
- Add clean water to Xypex powder and mix to a creamy consistency in volume proportions of 5 parts powder to 2 parts water.

Method

1. Rout out crack/joint in a "U" shaped slot 25 mm wide and at least 37 mm deep. A "V" shaped slot is not acceptable. Areas with most water flow should be identified and chipped slightly deeper.
2. 150 mm either side of the area to be repaired should be prepared as per surface preparation above.
3. Remove all loose material and saturate dry areas with water. Allow water to soak into concrete and then remove all surface water.
4. Apply Xypex Patch'n Plug to half the depth of slot immediately after removing surface water. Patch and Plug should be applied to the full length of crack/joint area.
5. Apply a slurry coat of Xypex Concentrate at a coverage of 1.0 kg/m² in the slot over the Patch and Plug and on the 150 mm strip of concrete surface on either side of the slot. Application may be performed by gloved hand or by brush.
6. While slurry coat is still tacky, fill slot to surface level with Xypex Concentrate Dry-Pac. Blend by trowel for 10 to 15 seconds only (lumps should be present in mixture). Apply the Dry-Pac by gloved hand, and then compress it tightly using a pneumatic packing tool or a hammer and block.
7. Wet the Dry-Pac surface lightly with water, then apply a slurry coat of Xypex Concentrate at a coverage of 1.0 kg/m² over the repaired area.

The Xypex treatment must not be applied under rainy conditions or when ambient temperature is below 4 degrees Celsius.

Curing

A misty fog spray of clean water should be used for curing the Xypex treatment and curing should begin as soon as the Xypex has set to the point where it will not be damaged by a fine spray of water.

Under certain conditions, it is sufficient to spray Xypex treated surfaces three times per day for two to three days. In hot or arid climates, spraying may be required more frequently. During the curing period, the coating must be protected from rainfall, frost, wind, the puddling of water and temperatures below 2 degrees Celsius for a period of not less than 48 hours after application. If plastic sheeting is used as protection, it must be raised off the Xypex to allow the coating to breathe.

Note: For concrete structures that hold liquids (e.g.: reservoirs, tanks etc.....)

Xypex should be cured for three days and allowed to set for 12 days before filling the structure with liquid. (Subject to all necessary ambient conditions being present to allow sufficient crystalline growth)

For concrete structures that hold particularly hot and/or corrosive liquids

Xypex should be cured for three days and allowed to set for 18 days before filling. (Subject to all necessary ambient conditions being present to allow sufficient crystalline growth)

In situations where there is poor air circulation (e.g. small, enclosed reservoirs or wet wells) fans or blown air may be necessary to aid the curing of Xypex.

Once cured, structures used to contain potable water supplies should be disinfected in compliance with the recommendations contained in 'The operational Guidelines for the protection of Drinking Water Supplies' before putting these structures into service.

Usually backfilling can take place 36 hours after the Xypex application. If backfilling takes place within seven days after the application, the backfilling material should be moist so as to not draw moisture from the Xypex coating.

For guidance on some of the precautions to be aware of in relation to applications that are to go on top of the Xypex coating system (such as paints, epoxies, cementitious systems or the like), refer to the Specification and Application Manual produced by Xypex Chemical Corporation.

Safety

Apply the usual industrial hygiene. Important information about work and environmental security can be found in the Xypex Patch'n Plug MSDS and Concentrate MSDS.

A copy of all relevant MSDS are available on request at info@smrxypex.co.uk

General Information

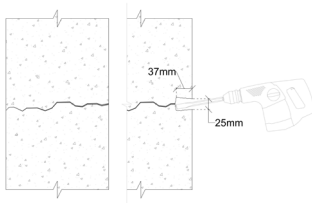
These instructions for use are for general guidance purposes only. SMR Projects Ltd do not make any warranty as to the merchantability or fitness for a particular purpose. The user shall determine the suitability of the product for its intended use and assume all risks and liability in connection therewith. This 'Method Statement' does not constitute as SMR Projects Ltd giving advice on a specific project or specification. This responsibility, and all risks and liability in connection therewith, remain with the user (or whoever is given such responsibility for the project in question).

For further detailed information relating to the use of this product, the user must refer to the relevant technical data sheet.

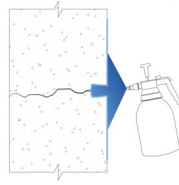
It is always recommended that before any application the local Xypex technical representative is contacted in order that he/she may assist the user in reviewing the proposed method of application, and perhaps advise of any further recommendations which may be required for the specific project in question.

It is recommended that the user carry out trials and appropriate testing, under site conditions, prior to committing to using the product. This is not only to enable the user to determine the correct Xypex specification to be used, and confirm whether all the project specification requirements will be met, but also to ensure other issues, such as compatibility of products, are established.

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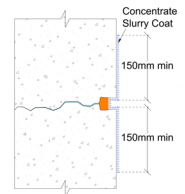
- Route Out – See Repair point 1



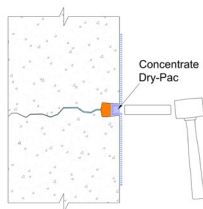
- Saturate – See Repair point 3.



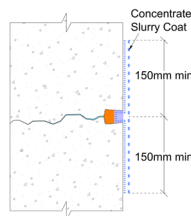
- Apply Patch'n Plug – See Repair point 4.



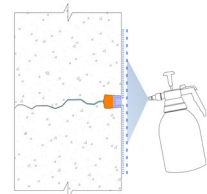
- Apply Concentrate Slurry – See Repair point 5.



- Apply Concentrate Dry Pack – See Repair point 6.



- Apply Concentrate Slurry – See Repair point 7.



- Cure – See curing