Xypex Concentrate – Slurry Coat

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 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.

Do not mix more Xypex material than can be applied in 20 minutes. As the mixture starts to thicken, stir frequently, but do not add additional water. Do not add water once mix starts to harden. Do not mix bonding agents or admixtures with the Xypex material. Ensure full protective clothing is worn at all times whilst in contact with the Xypex products.

Method

1. Monitoring that correct dosage rate is applied is achieved by carrying out 'Volume Area Control', namely the measuring out of the defined area that is to be treated, and then mixing the exact amount of product for that measured area.
2. When coating old concrete remove all loose material and saturate with water. Allow water to soak into the concrete and then remove all surface water. For fresh concrete the concrete surface must be a minimum of 20 hours old before application of the Xypex coating treatment, generally, if all necessary conditions are present, the period between 24 and 72 hours is the optimum time within which to apply Xypex, as new concrete is still 'green' and requires very little pre-watering.
3. Apply Xypex with a semi-stiff nylon bristle brush, push broom (for large horizontal surfaces) or specialised spray equipment. Do not apply Xypex with a trowel, roller, paintbrush or paint sprayer. The coating must be uniformly applied and should be just under 1.25 mm. A thicker coat can cause curing difficulties.
4. For slab (horizontal) applications, care should be taken to spread the Xypex evenly, pulling a heavy brush over the fresh Xypex. This should be done in long strips and will serve to eliminate settlement of the Xypex in low spots on the slab and also to remove excess material, which may have been applied.
5. When a second coat (Xypex Concentrate) is required, it should be applied after the first coat has reached an initial set but while it is still 'green' (less than 48 hours). Light pre-watering between coats may be required due to drying.
6. 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 2 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.

After initial curing allow the Xypex coating to remain undisturbed for 21 days during which time the coating must not be damaged to allow sufficient chemical transfer of Xypex active ingredient. After this period the coating can be trafficked or removed as required.

Note: For concrete structures that hold liquids (e.g. reservoirs, tanks etc.….)
Xypex should be cured for 3 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 3 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 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).

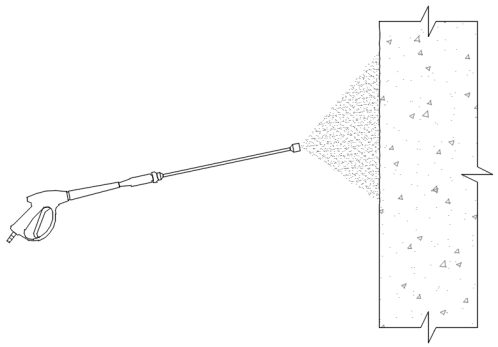
For further detailed information relating to the use of this product, the user must refer to the relevant technical data sheet.

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.

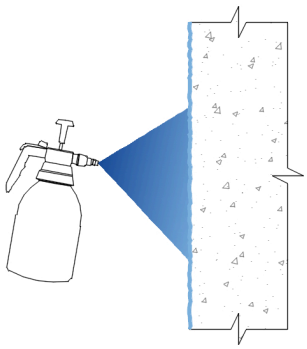
It is recommended that the user carry out trails and appropriate testing, under site conditions, prior to committing to using the product. This is not only to enable the user to determine the correct Xypex specification to be used, and confirm whether all the project specification requirements will be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

This document has been produced by SMR Projects Ltd and is subject to the standard terms and conditions of the company, a copy of which are available upon request.

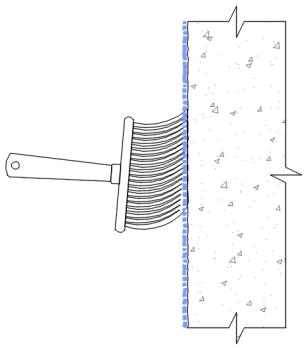
Prepare surface see **Surface Preparation** above



Saturate Substrate **see Method** point 2.



Apply to surface see **Method** points 3, 4 & 5.



Cure – If required – see Curing above.