XYPEX® CONCENTRATE

Technical Data Sheet

Product Description

Xypex® is a unique chemical treatment for the waterproofing, protection and repair of concrete. Xypex® Concentrate consists of Portland cement, finely graded sand and active proprietary chemicals; it is applied as a cementitious slurry to the pre-saturated surface of existing above and below-grade structures. Xypex® Concentrate is CE marked, in accordance with EN 1504-2.

The active chemicals diffuse into the substrate and react with moisture and the constituents of hardened concrete to cause a catalytic reaction. This reaction generates a non-soluble crystalline formation throughout the pores and capillary tracts of the concrete, as well as cracks, permanently sealing the concrete and preventing the penetration of water and other liquids from any direction, even under high hydrostatic pressure.

The material is available in cement grey and white colour.

Recommended for

For concrete structures with high demands on resistance to water and aggressive liquid chemicals.

Reservoirs, Sewage and Water Treatment Plants, Underground Vaults, Secondary Containment Structures, Foundations, Tunnels and Subway Systems, Swimming Pools, Parking Structures.

Product Characteristics

Appearance and Colour:	**non-standard grey or white powder**
Adhesive Bond (MPa):	**> 1,5 MPa**
Water Penetration Depth of Concrete:	**Specimen < Control**
Workability (20 °C/50% Rh):	**max. 25 minutes**
Chloride Ion Content:	**< 0,1 %**
Self-healing of stable crack:	**up to 0,4 mm**

Please consult the distributor regarding a proposed use in a chemically aggressive environment.

Directions for Use

Mix Xypex® powder with drinking water to a creamy consistency, either manually, or using a mixer, in the following proportions:

For Brush Application	0.65 - 0.8kg/m^2	5 parts powder to 2 parts water
	1.0kg/m^2	3 parts powder to 1 part water
For Spray Application	0.65 - 1.0kg/m^2	5 parts powder to 3 parts water (ratio may vary with equipment type)

Do not mix more Xypex® material than can be applied in 25 minutes. As the mixture thickens, stir briefly to ensure mixture remains fluid; but do not add water.

Please consult the distributor regarding the proposed use and consumption.

Surface preparation

Concrete surfaces must be saturated with water, clean and free of laitance, dirt, film, paint, coating or other foreign matter. Surfaces must have an open capillary system, this can be done by light sandblasting, waterblasting, or etched with muriatic (HCL) acid. There should be no excess water on horizontal surfaces before application.

If other layers are to be be applied over Xypex® Concentrate, please consult the distributor regarding the suitability and proper application procedures.

Curing

Generally a misty fog spray of clean water is used for curing the Xypex® treatment. Curing should begin as soon as Xypex® has set to the point where it will not be damaged by a fine spray of water. Under normal 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.

Wet burlap and some specialty curing blankets are also effective for curing. During the curing period, the coating must be protected from rainfall, frost, wind, the puddling of water and temperatures below 2ºC 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.

For concrete structures that hold liquids (e.g. reservoirs, swimming pools, tanks, etc.), Xypex® should be cured for three days and allowed to set for 12 days (18 days for waste water or corrosive solutions) before filling the structure with liquid.

Packaging

Metal pail with PE bag, weight 25 kg
Plastic bucket with PE bag, weight 5 kg
PE-lined paper bags, weight 20 kg

Storage

Xypex® products must be stored dry at a minimum temperature of 7ºC. Shelf life is 5 months when stored in unopened containers under proper conditions.

The product retains its properties for a period of one year. However, the product contains Chromium (VI) and may produce an allergic reaction. The cement in this product contains a reducing agent; the effectiveness of the reducing agent reduces with time. Use of this product after the end of the declared storage period may increase the risk of an allergic reaction. Reducing agents do not make cementitious products safe to handle without PPE.

Health & Safety

The composite mixture is highly alkaline, non-toxic.

During work, the safety instructions and applicable health and safety regulations of the relevant authorities must be observed. Personal protective equipment (clothing, goggles, gloves) should be used. Avoid direct contact with the mixed mixture during application. If skin contact occurs, immediately wash it thoroughly with clean water.

If unpleasant feelings continue, immediate medical attention should be sought. If eye contact occurs, immediately wash out with clean water and seek immediate medical attention.

Waste Disposal – Follow the relevant waste handling legislative. Packaging can be stored in a landfill or handed over to a specialist company for disposal.

Detailed information is available in the Material Safety Data Sheet.

Certification

Xypex Concentrate is certified as a coating resistant to chemicals according to EN 1504-2. The certification of the product, and regular audits of FPC are carried out by Notified Body 1020 TZUS (060-051352).

Continuous production quality control is done by Accredited Testing Laboratory No. 1687 LABBET®.

CE

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