

# **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.

#### Recommended for

- · Reservoirs
- Sewage and water treatment plants
- · Secondary containment structures
- · Tunnels and subway systems
- Underground vaults
- · Foundations / basements
- · Parking structures
- · Swimming pools

# **Advantages**

- · Resists extreme hydrostatic pressure
- · Highly resistant to aggressive chemicals
- · Can be applied to the positive or the negative side of the concrete surface
- · Non-toxic / no VOCs
- Permanent
- · Does not require a dry surface
- · Allows concrete to breathe

# Coverage

For normal surfaces conditions, the coverage rate for each Xypex coat is 0,65 to 0,8 kg of powder/m<sup>2</sup>.

## **Product Characteristics**

Appearance and Colour	grey powder
Chloride Ion Content of Powder	≤ 0,1% of mass
Bulk Density of Powder	1150 +/- 50 kg/m³
Adhesive Bond	average ≥ 1,0 MPa with no value < 0,7 MPa
Water Penetration Depth of Concrete	test specimen < control
Reaction to Fire	class A1
Dangerous Substances	meets Clause 5.3
Self-healing of Static Cracks	≤ 0,5 mm

#### **Surface Preparation**

Make any necessary structural repairs (e.g. defective concrete, faulty construction joints, cracks greater than 0,5 mm). 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 surfaces before application.

#### **Mixing**

For slurry coat applications, mix Xypex powder with clean water to a creamy consistency, either manually, or using a mixer, in the following proportions:

Application Method	Typical Coverage Rate (kg/m²)	Mix Ratio by Volume
Brush	0,65 - 0,80	5 parts powder to 2 parts water
	1,0	3 parts powder to 1 part water
Spray	0,65 - 0,80	5 parts powder to 3 parts water

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.

# **Application Procedures**

Apply Xypex with a semi-stiff nylon bristle brush or specialized spray equipment. The coating must be uniformly applied and should be just under 1,25 mm. When a second coat (Xypex Concentrate or Xypex Modified) 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).

Please consult your local Xypex Technical Services Representative regarding your project's use of Xypex Concentrate and for detailed application instructions.

## 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 2°C 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**

Xypex Concentrate is available in 9,1 kg pails and 27,2 kg pails.

# Storage

Xypex products must be stored dry at a minimum temperature of 7°C. Shelf life is one year when stored under proper conditions.

## **Health & Safety**

The Xypex powder or mixture is highly alkaline. Xypex may cause significant skin irritation and serious eye damage. During handling the powder or mixture, take the following precautions: wear impervious clothing, goggles, gloves and boots. Avoid direct contact with the powder or mixture. If skin contact occurs, immediately wash affected area with clean water; if irritation persists, seek immediate medical attention. If eye contact occurs, immediately flush eyes with clean water and seek immediate medical attention. The manufacturer details these precautions and directions for treating problems on packaging and on safety data sheets. The safety data sheets are readily available through your local Xypex dealer or representative.

The product can be disposed of in a landfill or processed by a specialist company; follow the relevant local waste handling requirements.

#### 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).

## Warranty

The Manufacturer warrants that the products manufactured by it shall be free from material defects and will be consistent with its normal high quality. Should any of the products be proven defective, the liability to the Manufacturer shall be limited to replacement of the product ex factory. The Manufacturer makes no warranty as to merchantability or fitness for a particular purpose and this warranty is in lieu of all other warranties expressed or implied. The user shall determine the suitability of the product for his intended use and assume all risks and liability in connection therewith.



