



## ADMIX C-2000 NF

CEMENTITIOUS CRYSTALLINE

Concrete Waterproofing

### Description

Xypex is a unique chemical treatment for the waterproofing, protection and improvement of concrete. XYPEX ADMIX C-2000 NF is added to the concrete mix at the time of batching. Xypex Admix C-2000 NF consists of Portland cement and various active, proprietary chemicals. These active chemicals react with the moisture in fresh concrete and with the by-products of cement hydration to cause a catalytic reaction. This reaction generates a non-soluble crystalline formation throughout the pores and capillary tracts of the concrete that permanently seals the concrete and prevents the penetration of water and other liquids from any direction.

### Recommended for:

- Reservoirs
- Sewage and Water Treatment Plants
- Secondary Containment Structures
- Tunnels and Subway Systems
- Dams
- Underground Vaults
- Foundations / Basements
- Parking Structures
- Swimming Pools
- Precast Components
- Bridge Structures

### Advantages

- Resists extreme hydrostatic pressure
- Becomes an integral part of the substrate
- Highly resistant to aggressive and chemical environments
- Can seal static hairline cracks up to 0.5 mm
- Allows concrete to breathe
- Non-toxic
- No VOCs
- Hydrophilic
- Less costly to install than most other methods
- Permanent
- Added into the concrete at time of batching and therefore is not subject to climatic restraints
- Increases flexibility in construction scheduling
- NSF 61 certified

For assistance with project requirements, please contact Xypex Technical Services Department.

### Packaging

Xypex Admix C-2000 NF is available in 13.6 kg bags or in a variety of conveniently sized packing. Contact your local Xypex Technical Services Representative or dealer for details and availability.

### Storage

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

### Dosage Rates

#### Xypex Admix C-2000 NF (No Fines Grade):

0.8 - 1% by weight of cement

#### NOTE:

i. For determining the appropriate dosage rate and for further information regarding concrete mixes containing fly ash / slag, enhanced chemical resistance, optimum concrete performance, or meeting the specific requirements and conditions of your project, consult with the local Xypex Technical Services Representative or Xypex's Technical Services Department.

ii. The recommended minimum dosage rate for Admix C-2000 NF (No Fines Grade) is 3 kg per m<sup>3</sup>; the maximum dosage is 5.5 kg per m<sup>3</sup>.

### Material Properties

Visual Appearance	Light grey powder
pH	12.0 - 12.4
Chloride Content	<0.1%
VOC	none
Alkali Content	<10% by mass
Dry Material Content	>99.5%
Corrosive Behavior	Contains only substances on approved list EN 934-1 annex A.1

### Directions for Use

Xypex Admix C-2000 NF is added to the concrete at the time of batching. It is important to obtain a homogeneous mixture of Xypex Admix with the concrete. Do not add dry Admix powder directly to wet mixed concrete as this could cause clumping and thorough dispersion may not occur. The sequence of procedures for addition will vary according to the type of batch plant operation and equipment. The following methods have been used successfully in the past and it is recommended that the local Xypex Technical Services Representative be consulted about the best method to use.

**1. ADDITION TO COARSE AGGREGATE BELT** Add Xypex Admix in bulk powder form directly to the coarse aggregate conveyor belt manually or through computer controlled mass batching system. Account for worker health and safety issues with moving belts and windblown dust issues.

**2. TRUCK ADDITION (AT PLANT)** Add Xypex Admix in bulk powder form to the drum of the ready-mix truck immediately prior to driving the truck under the batch plant and adding the balance of the materials or the premixed concrete in accordance with standard concrete batching practices. Wash Xypex Admix powder off of the drum fins and down into the drum to ensure full Admix dosage gets into the load. Avoid delays in adding other components and utilize high speed mixing to ensure homogeneity of mix. Where there may be insufficient water for thorough dispersion of the bulk powder, a water slurry can be made with the Admix and added to the truck mixer drum prior to batching. Account for added water in the mix design and slump.

**3. ADDITION TO CENTRAL MIXER** Add Xypex Admix in bulk powder form along with the other components. Mix as per standard batching practices to ensure thorough dispersal of the Admix resulting in a homogeneous mixture. Account for worker safety issues when accessing the equipment.

**NOTE:**

i. Although addition on site in powder form is not normally recommended, it may be necessary. In such a case, add Xypex Admix to truck in slurry form (e.g. 3 parts powder to 2 parts water by volume). Mix concrete for a minimum of 5 minutes on high speed or until thoroughly dispersed. Account for added water in the mix design and slump.

ii. Concrete containing the Xypex Admix does not preclude the requirement for design of crack control, construction joint detailing, proper placement, consolidation and curing of the concrete and measures for repairing defects such as honeycombing, tie holes, cracks beyond specified limits.

iii. Further guidelines are available that address the use of Xypex Admix for a specific situation, (e.g. dry mixes, use of ice in hot ambient conditions, cold-weather concreting, etc.). Consult with a local Xypex Technical Services Representative or Xypex's Technical Services Department for further information.

### Setting Time and Strength

The setting time and strength is affected by the chemical and physical composition of ingredients, temperature of the concrete and climatic conditions. Admix C-2000 NF is designed for warmer climates and projects where a slower hydration rate is typically required. Concrete containing Xypex Admix C-2000 NF may develop higher ultimate strengths than untreated concrete. Admix C-2000 NF may also be beneficial in controlling peak temperatures in mass concrete pours.

Trial mixes should be carried out under project conditions to determine the setting time and strength of the concrete dosed with Xypex Admix C-2000 NF. Consult with a Xypex Technical Services Representative for the most appropriate Xypex Admix for your project.

### Limitations

When incorporating Xypex Admix, the temperature of the concrete mix should be above 4°C.

### Technical Services

For more instructions, alternative installation methods, or information concerning the compatibility of the Xypex treatment with other products or technologies, contact the Technical Services Department of Xypex Chemical Corporation or your local Xypex Technical Services Representative.

### Certification

Xypex Admix satisfies the requirements of EN-934-2; Initial Type Testing (ITT) according to EN-934-2 was certified by BSI as the Notifying Body.

### Safe Handling Information

Xypex is alkaline. As a cementitious powder or mixture, Xypex may cause significant skin and eye irritation. Directions for avoiding and treating these problems are clearly detailed on all Xypex packaging. The Manufacturer maintains comprehensive and up-to-date Safety Data Sheets (SDS) that fully detail hazards, precautions, first aid measures and health and safety information for the protection and safety of workers and employees and customers. The Manufacturer recommends you contact Xypex Chemical Corporation or your local Xypex Technical Services Representative to obtain copies of Safety Data Sheets prior to product storage or use.

### 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.



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