



ADMIX C-5000

DESCRIPTION

XYPEX ADMIX C-5000 is a unique chemical treatment that has been specially formulated to enhance the durability of reinforced concrete exposed to aggressive conditions. Xypex Admix C-5000 is added to the concrete mix at the time of batching.

FEATURES AND BENEFITS

Xypex Admix C-5000 is a powdered additive consisting of Portland cement and various active proprietary chemicals. These active chemicals react with the moisture in fresh concrete and the by-products of cement hydration to cause a catalytic reaction which generates a non-soluble crystalline formation throughout the pores and capillary tracts of the concrete. The reaction products of Xypex Admix C-5000 are in mineral crystal form and prevent the penetration of deleterious ions into ordinary Portland cement concrete, fly ash concrete and slag cement concrete with equal effect. Research work in Australia, Canada and Japan has demonstrated that the Xypex C-Series Admix enhances the ability of concrete to resist sulphate attack, limits chloride ion penetration, improves the chemical resistance of reinforced concrete and accelerates autogenous healing of cracks.

Note: The Xypex Admix C-Series has been specially formulated to meet varying project and temperature conditions (see Setting Time and Strength). Consult with a Xypex Technical Representative to determine the most appropriate Xypex Admix and to obtain technical support literature for your project.

COMPLIANCE

Xypex Admix C-5000 complies with the requirements of AS 1478.1, as a type SN Special Purpose Admixture.

RECOMMENDED FOR:

Reinforced concrete (whether poured-in-place, pre-cast, pre-stressed, post-tensioned or shotcrete) that is subjected to aggressive environments.

ADVANTAGES

- Ease of application
- Becomes an integral part of the concrete
- Highly resistant to sulphates and chlorides
- Addresses a wide range of environmental issues
- Concrete protection from aggressive chemicals with a pH range of 3-11 in constant contact
- Can seal hairline cracks up to 0.4 mm
- Allows concrete to breathe
- Non-toxic
- Cost efficient
- Permanent
- Added to the concrete at time of batching and is therefore not subject to climatic restraints
- Increases flexibility in construction scheduling

PACKAGING

Xypex Admix C-5000 is available in 15 kg pails. Each pail contains 6 x 2.5 kg soluble bags. For large projects, customised packaging is available.

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-5000: 0.5% - 0.6% by weight of cementitious content.

Consult with Xypex Australia's Technical Department or your local Xypex Representative for assistance in determining the appropriate dosage rate and for further information regarding enhanced chemical resistance, optimum concrete performance, or meeting the specific requirements and conditions of your project.

POTABLE WATER EXPOSURE

AS/NZS 4020 "Products For Use In Contact With Drinking Water", Australian Water Quality Centre, Adelaide, South Australia

Exposure testing of potable water in contact with Xypex-treated samples indicated no harmful effects.

DIRECTIONS FOR USE

Xypex Admix C-5000 must be added to the concrete at the time of batching. The sequence of procedures for addition will vary according to the type of batch plant operation and equipment.

1. READY MIX PLANT – DRY BATCH OPERATION Prior to concrete being batched, add Xypex Admix in powder form to the drum of the ready-mix truck. Mix the materials thoroughly to ensure that the Admix is distributed evenly throughout the batch. A minimum of 10 minutes must elapse before discharge of the concrete. A further 1 minute of mixing at high speed immediately prior to discharge is recommended.

2. READY MIX PLANT - CENTRAL MIX OPERATION Add the required amount of Xypex Admix material either into the drum or onto the raw materials in the ready-mix plant. The aggregate, cement and water should be batched and mixed in the plant in accordance with standard practices. Pour the concrete into the truck and mix for at least 5 minutes to ensure even distribution of the Xypex Admix throughout the concrete.

Note: It is important to obtain a homogeneous mixture of Xypex Admix with the concrete. Therefore, do not add dry Admix powder directly to wet concrete as this may cause clumping and thorough dispersion will not occur.

For further information regarding the proper use of Xypex Admix for a specific project, consult with a Xypex Technical Representative.

SETTING TIME AND STRENGTH

The setting time of concrete is affected by the chemical and physical composition of ingredients, temperature of the concrete and climatic conditions. Extension of set time may occur when using Xypex Admix C-5000. The amount of extended set will depend upon the concrete mix design and the dosage rate of the Admix. Concrete containing Xypex Admix may develop higher ultimate strengths than plain concrete.

Trial mixes should be carried out under project conditions to determine setting time and strength of the concrete.

LIMITATIONS

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

TECHNICAL SERVICES

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

SAFE HANDLING INFORMATION

Xypex is alkaline. As a cementitious powder or mixture, Xypex may cause significant skin and eye irritation. Directions for treating these problems are clearly detailed on all Xypex buckets and packaging. The Manufacturer also maintains comprehensive and up-to-date Material Safety Data Sheets on all its products. Each sheet contains health and safety information for the protection of your employees and customers. Contact Xypex Australia or your local Xypex Representative to obtain copies of Material Safety Data Sheets prior to product storage or use.

WARRANTY

Concrete Waterproofing Manufacturing Pty Ltd (trading as Xypex Australia) (the "Manufacturer") warrants that the products manufactured by it shall be free from material defects and be of a consistent quality. Should any of the products be proven defective, the liability of the Manufacturer shall be limited to replacement of the product ex-factory. The Manufacturer gives no warranty as to fitness of the products for any particular purpose. The user shall: determine the suitability of the product for its intended use; comply with the directions for use and safe handling information available from Xypex; and assume all risks and liabilities in connection with the use of this product.