

**PENETRON ADMIXTURE
CRYSTALLINE WATERPROOFING ADMIXTURE**

INSTRUCTIONS FOR USE.

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DESCRIPTION

PENETRON ADMIX[®] (integral crystalline waterproofing admix) is added to the concrete mix at the time of batching. PENETRON ADMIX[®] consists of Portland cement, very fine treated silica sand and various active, proprietary chemicals. These active chemicals react with the moisture in fresh concrete with 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. Thus, the concrete becomes permanently sealed against the penetration of water or liquids from any direction. The concrete is also protected from deterioration due to harsh environmental conditions. The Penetron Admix has been specially formulated to meet varying project and temperature conditions (see SETTING TIME AND STRENGTH). Consult with a Penetron Technical Representative for additional detailed support on your project.

RECOMMENDED FOR

- Reservoirs
- Foundations
- Sewage and Water Treatment Plants
- Parking Structures
- Secondary Containment Structure
- Swimming Pools
- Tunnels and Subway Systems
- Pre-Cast, Cast-in-Place and Shotcrete application

ADVANTAGES

Resists extreme hydrostatic pressure from either positive or negative surface of the concrete slab. Becomes an integral part of the concrete.
Highly resistant to aggressive chemicals
Can seal hairline cracks up to 1/64" (0.4 mm)
Allows concrete to breathe
Non-toxic (DWI certified for potable water applications in the United Kingdom)
Less expensive than traditional methods
Permanent
Added to the concrete at time of batching and therefore is not subject to climatic restraints
Reduces construction scheduling time
Zero VOC – Penetron powdered products contain zero volatile organic content and are safe for use both outdoors and in confined indoor spaces

DIRECTIONS FOR USE

Dosage Rate: 0.8-1.0% by weight of cement. Consult with Penetron's Technical Department for assistance in verifying the appropriate dosage rate and for further information regarding enhanced chemical resistance and optimum concrete performance for your project.

Mixing: PENETRON ADMIX[®] must be mixed with water added to the concrete at the time of batching.

On-Site Applications: Mix 0.8-1% of Penetron Admix powder by weight of cement with water to form a thin slurry type consistency. Add this to the concrete mixer and allow to thoroughly mix for at least 4-5 minutes.

NOTE: It is important to obtain a homogeneous mixture of PENETRON ADMIX[®] with the concrete. Therefore, do not add dry PENETRON 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 PENETRON ADMIX[®] for a specific project, consult with a Penetron Technical Representative.

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Penetron UK Ltd Sales.

Oakland Business Centre, Stoney Hill Industrial Estate, Whitchurch, Ross-on-Wye. HR9 6BX
Tel: 07833 746550 Email: info@penetron.co.uk Web: www.penetron.co.uk

Ready Mix Plant - Central Mix Operation:

Mix PENETRON ADMIX[®] with water to form a very thin slurry e.g. 18 kg/ (40 lbs) of powder mixed with 6 gallons 22.7Ltrs (6 gallons) of water). Pour the required amount of material into the drum of the ready-mix truck. The aggregate, cement and water should be batched and mixed in the plant in accordance with standard practices (considering the quantity of water that has already been placed in the ready-mix truck). Pour the concrete into the truck and mix for at least 5 minutes to ensure even distribution of PENETRON ADMIX[®] throughout the concrete.

Precast Batch Plant:

Add PENETRON ADMIX[®] to the rock and sand, then mix thoroughly for 2-3 minutes before adding the cement and water. The total concrete mass should be blended using standard practices.

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. Retardation of set may occur when using PENETRON ADMIX[®]. The amount of retardation will depend upon the concrete mix design and the dosage rate of PENETRON ADMIX[®]. However, under normal conditions, PENETRON ADMIX[®] will provide a normal set concrete. Concrete containing PENETRON 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. Concrete treated with PENETRON ADMIX[®] should be placed and finished in accordance with good concrete practices. ACI guidelines and recommendations should be observed.

SPECIAL CONSIDERATIONS:

When incorporating PENETRON ADMIX[®], the temperature of the concrete mix should be above 40°F (4°C).

PACKAGING:

PENETRON ADMIX[®] is available in 18Kg (40 lb bags, 25 kg (55lb) pails, and 3 kg (6.6 lb) soluble bags. For large projects, customized packaging is available.

STORAGE / SHELF LIFE:

When properly stored in a dry place in unopened and undamaged original packaging, shelf life is 12 months. . Unused powder material must be immediately returned to the original air tight pails, sealed, and can be used within 6 months.

TECHNICAL SERVICES:

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

SAFE HANDLING INFORMATION:

PENETRON ADMIX[®] is alkaline. As a cementitious powder or mixture, Penetron Admix may cause significant skin and eye irritation. Penetron International, Ltd. 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 Penetron International, Ltd. or your local Penetron representative to obtain copies of Material Safety Data Sheets prior to product storage or use.

ACCIDENTAL RELEASE MEASURES:

Personal Precautions: Evacuate contaminated area. Do not walk through spilled material. Increase ventilation and wear protective clothing and respiratory protection.

Environmental Precautions: Keep spilled material and runoff from entering drains, sewers, ditches and waterways. Minimize use of water to prevent environmental contamination.

Methods for Clean-up: Avoid generating dust. Vacuum, shovel or sweep up spilled material and place in a tightly sealed drum for proper disposal.

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