

PENETRON ADMIX

Concrete waterproofing & durability enhancing admixture

**DESCRIPTION:**

PENETRON ADMIX is an integral crystalline concrete waterproofing & durability enhancing admixture, which waterproofs and protects concrete in-depth.

It consists of Portland cement, specially treated quartz sand and a compound of active chemicals. When PENETRON ADMIX is mixed with the concrete when it is batched, the active chemicals combine with the free lime and moisture present in the capillary tracts of the concrete over time to form an insoluble, crystalline structure. These crystals continuously fill the pores and micro cracks in the concrete preventing any further water ingress (even under high hydrostatic pressure). These crystals are active for the life of the concrete meaning it is permanently protected.

The product still allows the passage of vapour through the structure (i.e. the concrete will be able to "breathe"). In addition to waterproofing the structure, PENETRON ADMIX protects concrete against seawater, chloride ions, wastewater, aggressive ground water and many other aggressive chemical solutions. PENETRON ADMIX is suitable for use in contact with potable water and therefore can be used in water storage tanks, reservoirs, water treatment plants ...etc.

TYPICAL APPLICATIONS:

- Any concrete requiring waterproofing & enhanced durability characteristics
- Water retaining structures & tanks
- Basement retaining walls
- In-ground structures
- Underground structures
- Tunnels
- Lift shafts
- Swimming pools
- Drinking water tanks
- Sewage & water treatment plants
- Parking structures
- Marine structures & concretes exposed to chlorides
- Precast concrete
- Foundations

ADVANTAGES:

- Becomes a permanent integral part of the concrete, producing watertight & highly durable concrete
- Completely effective against high hydrostatic pressure
- Continuously seals concrete's pores, capillary tracts and micro cracks for the life of the concrete
- Continuously seals hairline and small cracks up to 0.4 mm in width for the life of the concrete
- Protects embedded steel against corrosion by chloride ions
- Increases concrete's compressive strength

- Resists chemical attack (pH3-11 constant contact, 2-12 intermittent contact)
- Provides a range of protection from freeze/thaw cycles, aggressive subsoil waters, sea water, carbonates, chlorides, sulphates and nitrates
- Waterproofing and chemical resistance properties remain intact even if the surface is damaged
- More robust, durable and less costly than membrane water proofing systems
- Cannot come apart at the seams, tear or puncture
- Does not require protection during backfilling, placement of steel or wire mesh, and other common procedures
- Easy to use
- Nontoxic. Suitable for potable drinking water applications

TECHNICAL DATA:

CONTAINER APPEARANCE: Cementitious powder

FRESH CONCRETE TEMPERATURE: >5°C

POTABLE WATER USE: Suitable

HYDROSTATIC PRESSURE USE: Suitable

DOSAGE:

1% by weight of cement

PACKAGING:

PENETRON ADMIX is supplied in 25kg containers.

STORAGE & SHELF LIFE

Can be stored in its original container tightly sealed in a dry place for a period of 12 months after production.

TRIAL MIXES

Under normal conditions PENETRON ADMIX will produce normal setting times & increased compressive strengths. Pre-project trial mixes are recommended to establish exact setting times and concrete strengths.

DIRECTIONS FOR USE

PENETRON ADMIX at 1% by weight of cement is added to the concrete at the time of batching. It is important to have the complete dosage of PENETRON ADMIX thoroughly mixed throughout the concrete mix. Do not add dry powder directly to wet concrete to avoid admixture balling. See technical advice if required.

CURING:

Normal concrete curing practises should be adopted.

PRECAUTIONS

Pre-project trial mixes are recommended to establish exact setting times and concrete strengths.

It is important to have the complete dosage of PENETRON ADMIX thoroughly mixed throughout the concrete mix and admixture balling should be avoided.

The fresh concrete mixture should not drop below 5° C. See technical advice if required.

CLEANING:

Clean all tools with water immediately after use.

SAFETY & ENVIRONMENT:

Avoid contact with eyes & skin. Do not breathe in dust. Wear suitable protective clothing, rubber gloves, eye protection and a suitable dust mask. Wash thoroughly after handling & store any leftover material properly. Keep out of sewers and storm water and dispose of any leftovers as trade waste in accordance with local authority guidelines.

FIRST AID:

Irrigate eyes & skin with plenty of water & seek medical advice immediately.

DISCLAIMER: *Recommendations & advice regarding the use of this product are to be taken as a guide only. Other than as appears on this products packaging, CEMIX LTD does not give any warranty express or implied as to the suitability of this product for your particular use, because the usage of this product is beyond the control of CEMIX LTD. If you need advice concerning the use of suitability of this product for your particular application, please contact CEMIX LTD first.*

20/04/11