

AQUAMAT-ADMIX

Crystalline waterproofing admixture for concrete

Description

AQUAMAT-ADMIX is an admixture in powder form consisting of cement and special active chemicals, which react with moisture and free lime in fresh concrete creating insoluble crystalline compounds. These crystals seal capillary shrinkage cracks inside concrete, thus protecting against penetration of water under strong hydrostatic pressure. Offers the following advantages:

- Water impermeability against water pressure from both positive and negative side.
- Significant reduction of the capillary absorption of water.
- Permanently active for the life of the structure – therefore, it continuously protects the construction from any water penetration.
- Ability to seal hairline cracks up to 0.4mm wide, even if they appear after the setting of concrete.
- Not affecting vapor permeability of the concrete element.
- Protection of the steel of reinforced concrete from corrosion.
- No air-entraining action.
- Free of chlorides and other corrosive ingredients.
- Compatibility with all kinds of Portland cement.

Certified according to EN 934-2: T9 and classified as a water-resisting concrete admixture. CE marked. Certificate No: 0906-CPR-02412007/01.

AQUAMAT-ADMIX has also been tested and approved by the National University of Water Management and Natural Resources (Rivne Ukraine) – Laboratory of Testing Building Materials, for the following properties:

- Increase of water tightness of concrete.
- Increase of frost resistance.
- Slight increase of final concrete strength.

AQUAMAT-ADMIX has received an Environmental Product Declaration (EPD) following an assessment of its life-cycle environmental impacts. Registration No: S-P-06171, The International EPD® System.

Fields of application

AQUAMAT-ADMIX is suitable for any type of concrete element that is constantly or temporarily in contact with water, such as foundations, basements, water tanks, tunnels, canals, sewage and wastewater treatment tanks, swimming pools, etc.

Technical data

Form:	powder
Color:	grey
Density of dry mortar:	0.97 ± 0.1 kg/l
Maximum chloride content:	chloride-free
Maximum alkali content:	≤ 5.0% by weight

Directions for use

As AQUAMAT-ADMIX is in powder form, it should never be added directly to wet concrete. This could cause clumping and the admixture will not be dispersed properly.

1st way: Addition to the aggregates:

AQUAMAT-ADMIX is added first to the aggregates and then is thoroughly mixed for 2-3 minutes with about 50% of the required mixing water, before cement and the residual water are added. The concrete should be mixed for at least 2-3 minutes to ensure good distribution of AQUAMAT-ADMIX within the concrete mass.

2nd way: Addition to the concrete mixer truck:

First, AQUAMAT-ADMIX is mixed separately with water in the following ratio: 20 kg of AQUAMAT-ADMIX with 25.5 l of water, in order to form a slurry. Then this slurry is added to the wet concrete at a ratio of 1.80-2.20 kg of slurry per 100 kg of cement. Further mixing must take place for at least 5 min to achieve a homogeneous mixture.

Consumption

0.8-1.0 kg per 100 kg of cement.

AQUAMAT-ADMIX

Packaging

4 kg & 20 kg bags.

Shelf life – Storage

- 20 kg paper bags: 12 months from production date
- 4 kg plastic bags: 18 months from production date.

This information is valid as long as the product is stored in original, unopened packaging, in a frost-free and dry place.

Remarks

- AQUAMAT-ADMIX might affect concrete setting time and the final strength. They both depend on the concrete mix design. Trial mixes should be carried out, in order to determine the actual effect of the product on concrete.
- Due to cement content, the product reacts with water forming alkaline solutions, thus is classified as irritant.
- The water/cement ratio of the concrete mix remains quite unaffected when AQUAMAT-ADMIX is added to wet concrete in the form of slurry, since in addition to the water contained in the slurry, additional cement contained in AQUAMAT-ADMIX is added.
- Specific local regulations concerning production of waterproof concrete have to be followed.
- Please consult the directions for safe use and precautions written on the packaging before use.



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EN 934-2:2009+A1:2012

DoP No.: AQUAMAT ADMIX/1631-03

AQUAMAT ADMIX

Water Resisting admixture for concrete
EN 934-2: T.9

Max. chloride content: chloride free

Max. alkali content: ≤ 5.0% by weight

Corrosive behaviour: contains components only from EN 934-1:2008, Annex A.1

Dangerous substances: compliance

ISOMAT S.A.

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