Technical Datasheet

AQUAMAT-ADMIX

Crystalline waterproofing admixture for concrete

Description

AQUAMAT-ADMIX is an admixture in powder form consisting of cement and special active chemicals that react with moisture and the free lime in fresh concrete, forming 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:

- Provides water impermeability against positive and negative hydrostatic pressure.
- Significantly reduces capillary water absorption.
- Stays permanently active, protecting the structure throughout its service life from any water ingress.
- Seals hairline cracks up to 0.4 mm wide, even if they appear after the setting of concrete.
- Does not affect the concrete structure's vapor permeability.
- Prevents corrosion in reinforced concrete.
- No air-entraining action.
- Free of chlorides and other corrosive ingredients.
- Compatible with all Portland cement types.

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

AQUAMAT-ADMIX complies with all the requirements established in Royal Decree 3/2023, based on Directive (EU) 2020/2184, which establishes sanitary criteria for the quality of water for human consumption. Water tanks must be thoroughly washed prior to filling with potable water.

It 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: EPD-IES-0006171, 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:	≤ 11.0% 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 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 must be followed.
- Please consult the directions for safe use and precautions written on the packaging before use.

CE

0906

ISOMAT S.A.
17th km Thessaloniki – Ag. Athanasios
P.O. BOX 1043, 570 03 Ag Athanasios, Greece

13

0906-CPR-02412007/01

EN 934-2:2009+A1:2012

DoP No.: AQUAMAT ADMIX/1631-04

AQUAMAT ADMIX

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

Max. chloride content: chloride free

Max. alkali content: ≤ 11.0% by weight

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

Dangerous substances: compliance

ISOMAT S.A.
BUILDING CHEMICALS, MORTARS & PAINTS
HEADQUARTERS – THESSALONIKI, GREECE
17th km Thessaloniki – Ag. Athanasios Road
P.O. BOX 1043, 570 03 Ag. Athanasios, Greece
T +30 2310 576000
www.isomat.eu e-mail: support@isomat.eu

The technical information and instructions supplied in this datasheet are based on the knowledge and experience of the Department of Research and Development of our company and on results from long-term applications of the product in practice. The recommendations and suggestions referring to the use of the product are provided without guarantee, since site conditions during the applications are beyond the control of our company. Therefore, the user is responsible for confirming that the chosen product is suitable for the envisaged application. The present edition of this technical datasheet automatically cancels any previous one concerning the same product. | Edition: 04.06.2025