



AQUAMAT WATERPROOFING SYSTEMS

Brushable, cement-based, waterproofing slurries for basements, flat roofs, pools, wet areas, water tanks etc.



isomat
building quality

Preparation of substrate

The preparation of the substrate, described below, is the same for the application of all the AQUAMAT range products.

- The substrate must be clean, free of oily residues, loose material, dust etc.
- Water leaks should be plugged with AQUAFIX rapid setting cement.
- Any cavities in concrete surface should be filled in and smoothed out using DUROCRET, DUROCRET-FAST, DUROCRET-PLUS or RAPICRET after all loose aggregate has been removed and the surface has been well moistened.
- Distance pieces and form wires should be cut in a depth of about 3 cm into the concrete and the holes should be sealed as above.
- Existing work joints are opened longwise in an inverse V-shape in a depth of about 3 cm and are subsequently filled in as above.
- Corners like the joint of floors with vertical walls, should be filled in and rounded smooth with DUROCRET, DUROCRET-FAST, DUROCRET-PLUS or RAPICRET.
- In case of masonry walls, joints should be first filled in carefully; otherwise, it is recommended to apply a cement mortar layer improved with ADIPLAST.
- For waterproofing of basements in old buildings, any existing wall plastering should be removed to a height of up to 50 cm above water level and then proceed as above.

Cleaning of tools

Tools should be cleaned with water immediately after use.

Protection

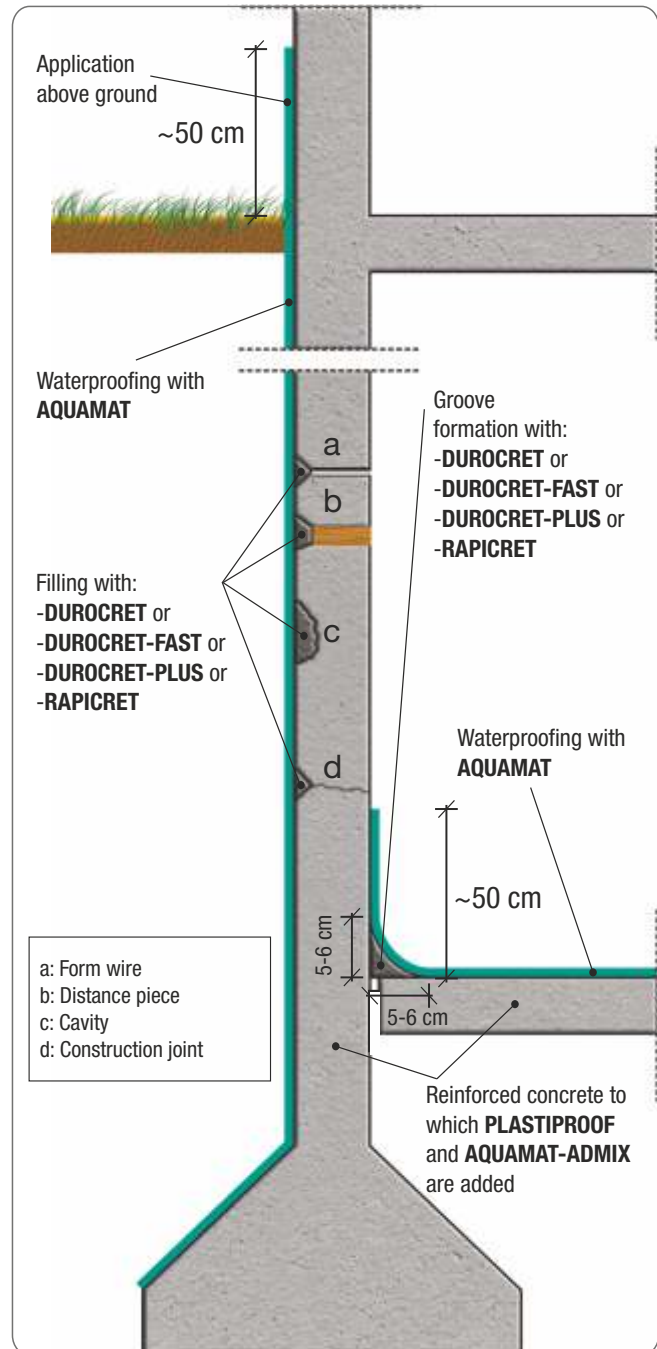
The freshly coated surface should be protected from high temperatures, rain and frost. In cases of operational walkable floors, the waterproofed floor surface should be protected with a cement mortar layer.

Structural capacity

In cases of water pressure the structure that bears the sealing layer (wall, floor etc.) must have already been suitably designed in order to withstand water pressure.

Remark

It is recommended that pumping out water should continue for about 7 days after the waterproofing is finished, until the strength of the AQUAMAT's membrane has developed sufficiently.



Waterproofing of basements carried out during construction of the building

Moisture problems in basements, due to underground water level or rain water, are a common phenomenon. The best solution for such problems is precaution, because reparations of the basement in retrospect are difficult and costly. Therefore, it is very essential to carefully select and apply the proper materials. Below, is presented the waterproofing solution for basements carried out during construction of the building.



To reinforced concrete is added **PLASTIPROOF**, a type A plasticizer and **AQUAMAT-ADMIX**, a concrete waterproofing admixture with crystallizing effect.



The substrate should be thoroughly cleaned from any possible formwork oil residues, loose particles, dust etc.



Externally, any cavities in the concrete should be cleaned from loose particles, aggregates etc. Form wires and distance pieces should be cut at a 3 cm depth. Any working joints should be widened in a V-shape along their length, at a depth of 3 cm. The surface of the above areas should be thoroughly dampened and filled with polymer modified cement mortars **DUROCRET**, **DUROCRET-PLUS** or **DUROCRET-FAST**.



Depending on the water pressure, 2-4 layers of **AQUAMAT** are applied onto the external walls of the basement after dampening. The coating surface must extend to at least 50 cm above the ground level. Each layer must be fully dry before the next one is applied. To avoid cracking, each layer should not be thicker than 1 mm.



Intersections of the floor with vertical elements (concrete walls, columns) should be dampened and sealed along their entire length with **DUROCRET**, **DUROCRET-PLUS** or **DUROCRET-FAST** (formation of a "groove"). 2-4 layers of **AQUAMAT** are applied onto the basement floor. The floor coating must expand on the concrete walls or columns at a height of at least 50 cm above the groove formed at the intersection with the floor. Each layer must be fully dry before the next one is applied.



AQUAMAT

Cement-based brushable waterproofing slurry



Description

AQUAMAT is a cement-based brushable waterproofing slurry, offering the following advantages:

- Total waterproofing against water pressure up to 7 atm, according to DIN 1048-5.
- Perfect bonding to substrates like concrete, masonry, render, even under negative pressure conditions.
- Suitability for potable water tanks as well as surfaces in direct contact with food products, according to W-347.
- Bonding to wet surfaces without priming.
- Simple and low-cost application.
- No corrosive effects on steel in reinforced concrete.
- It is classified as a coating for surface protection of concrete, according to EN 1504-2. Certificate Nr. 2032-CPR-10.11.

Fields of application

Waterproofing of concrete elements, masonry or render surfaces, in cases ranging from simple moisture to water pressure. Suitable for waterproofing of basements, water tanks, swimming pools, sewage tanks, etc. Enables internal waterproofing of underground areas, since it can withstand negative pressure (water from the substrate side), due to its absolute bonding to the substrate. In cases that the surface to be sealed shows or is expected to show haircracks, like flat roofs, balconies etc., the two-component brushable waterproofing slurries AQUAMAT-FLEX and AQUAMAT-ELASTIC are recommended.

Directions for use - Consumption

AQUAMAT is gradually added to water under continuous stirring, until a uniform viscous mixture is formed, suitable for brush application. The entire surface of the substrate should be dampened well, but without creating any water puddles. The material is applied by brush in 2 or more layers, depending on the water effect. According to it, minimum consumption and relevant thickness should be as follows:

Water effect	Minimum consumption	Minimum thickness
Moisture	2.0 kg/m ²	Approx. 1.5 mm
Water without pressure	3.0 kg/m ²	Approx. 2.0 mm
Water pressure	3.5-4.0 kg/m ²	Approx. 2.5 mm

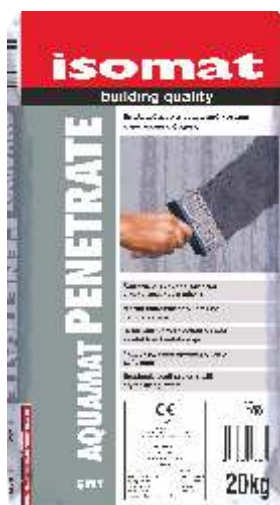
Packaging

- Plastic bags of 5 kg in grey and white color.
- Paper bags of 25 kg in grey, white and light blue color.



AQUAMAT-PENETRATE

Brushable waterproofing slurry with crystallizing effect



Description

AQUAMAT-PENETRATE is a cement-based brushable waterproofing slurry with special active chemicals, which in contact with moisture and the present hydroxide of lime, react and form crystals. These crystals block the capillary pores and seal the shrinkage cracks inside the concrete, preventing any further water absorption. It offers the following advantages:

- Remains permanent active, continuously protecting the construction from any water presence.
- Excellent bonding to concrete, under both positive and negative water pressure.
- Capable of sealing hair cracks of up to 0,4 mm, even if they appear afterwards.
- There is no influence on the waterproofing of construction, in case of damaging the concrete surface or the waterproofing layer.
- Protects construction from corrosion of the reinforcement steel of concrete.
- Suitable for potable water tanks as well as surfaces in direct contact with food products, according to W-347.
- Simple and low-cost application.
- It is classified as a coating for surface protection of concrete, according to EN 1504-2. Certificate Nr. 2032-CPR-10.11.

Fields of application

Waterproofing of concrete elements, in cases ranging from simple moisture to water pressure. Suitable for waterproofing of basements, foundations, manholes, water tanks, sewage tanks.

Directions for use - Consumption

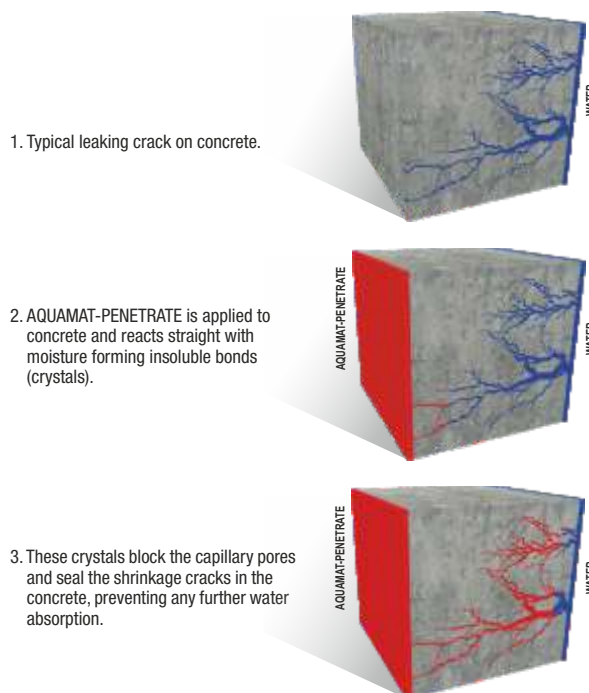
The content of the AQUAMAT-PENETRATE is added into the water under continuous stirring, until a uniform viscous mixture is formed, suitable for brushing or spraying. The application surface must be slightly wet, but without staying water. The product is being applied by brush or by spraying in two layers.

Consumption: Approximately 0.75 kg/m²/layer.

Packaging

Paper bags of 20 kg in grey color.

The way AQUAMAT-PENETRATE waterproofs:



1. Typical leaking crack on concrete.

2. AQUAMAT-PENETRATE is applied to concrete and reacts straight with moisture forming insoluble bonds (crystals).

3. These crystals block the capillary pores and seal the shrinkage cracks in the concrete, preventing any further water absorption.

AQUAMAT-FLEX

Flexible, two-component cement-based brushable waterproofing slurry



Description

AQUAMAT-FLEX is a flexible, two-component, brushable waterproofing slurry. It consists of a cement-based powder mortar (component A) and a resin emulsion (component B). It is offering the following advantages:

- Crack-bridging ability.
- Total waterproofing against water pressure up to 7 atm, according to DIN 1048-5.
- Perfect bonding to substrates like concrete, masonry, render, even under negative pressure conditions.
- Suitability for potable water tanks, as well as surfaces in direct contact with food products, according to W-347.
- Vapor permeability.
- Bonding to wet surfaces without priming.
- Simple and low-cost application.
- No corrosive effects on steel in reinforced concrete.
- It is classified as a coating for surface protection of concrete, according to EN 1504-2. Certificate Nr. 2032-CPR-10.11.

Fields of application

It is used for waterproofing surfaces made of concrete, renders, bricks, cement-blocks, mosaic etc., that show or are expected to show hair-cracks. Ideal for application on flat roofs, terraces, balconies and damp areas to be covered with tiles (bathrooms, kitchens), inverted roofs, underground reservoirs, flower stands etc. It can also be used for waterproofing of basements, internally or externally, against humidity or water under pressure. In cases where extremely high elasticity is required, the use of AQUAMAT-ELASTIC is recommended.

Directions for use - Consumption

The content of the 25 kg bag (component A) is added into the 8 kg of liquid (component B) under continuous stirring, until a uniform viscous mixture is formed, suitable for brush application. The entire surface of the substrate should be dampened well, but without creating any water puddles. Depending on the water effect, the material is applied in 2-4 layers. Layers thicker than 1 mm should be avoided, because the material may crack.

Consumption: 1.90 kg/m²/mm.

Packaging

- Combined 33 kg package (25 kg comp. A + 8 kg comp. B), in grey color.
- Combined 18 kg package (13.6 kg comp. A + 4.4 kg comp. B), in grey color.



AQUAMAT-MONOFLEX

Flexible, fiber-reinforced, one component, cement-based brushable waterproofing slurry



Description

AQUAMAT-MONOFLEX is a flexible, one component, brushable waterproofing slurry. It consists of a cement-based powder mortar enriched with resins. After hardening it forms a seamless and jointless membrane offering the following advantages:

- Crack-bridging ability.
- Total waterproofing against water pressure up to 7 atm, according to DIN 1048-5.
- Protection of concrete from carbonization.
- Vapor permeability.
- Resistance to ageing.
- Bonding to wet surfaces without priming.
- Simple and low-cost application.
- It is classified as a coating for surface protection of concrete, according to EN 1504-2. Certificate Nr. 2032-CPR-10.11.

Fields of application

It is used for waterproofing surfaces made of concrete, renders, bricks, cement-blocks, mosaic etc., which show or are expected to show hair-cracks. Ideal for application on flat roofs, terraces, balconies and damp areas to be covered with tiles (bathrooms, kitchens), inverted roofs, underground reservoirs, flower stands etc. It can also be used for waterproofing of basements, internally or externally, against humidity or water under pressure.

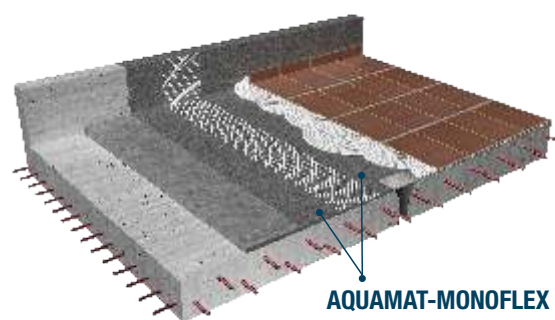
Directions for use - Consumption

The content of the 18 kg bag is added into the 4.7-5.0 l of water for application by brush, or to 4.1-4.5 l of water for application by trowel, under continuous stirring, until a uniform viscous mixture is formed, suitable for brush application. The entire surface of the substrate should be dampened well, but without creating any water puddles. Depending on the water effect, the material is applied in 2-4 layers. Layers thicker than 1 mm should be avoided, because the material may crack.

Consumption: 1.36 kg/m²/mm.

Packaging

Paper bags of 18 kg in grey color.



AQUAMAT-ELASTIC

Elastic, two-component cement-based brushable waterproofing slurry



Description

AQUAMAT-ELASTIC is an elastic, two-component, brushable waterproofing slurry. It consists of a cement-based powder mortar (comp. A) and a resin emulsion (comp. B). It is offering the following advantages:

- Crack-bridging ability.
- Total waterproofing against water pressure up to 7 atm, according to DIN 1048-5.
- Perfect bonding to substrates like concrete, masonry, render, even under negative pressure conditions.
- Suitability for potable water tanks as well as surfaces in direct contact with food products, according to W-347.
- Vapor permeability.
- Bonding to wet surfaces without priming.
- Simple and low-cost application.
- No corrosive effects on steel in reinforced concrete.
- It is classified as a coating for surface protection of concrete, according to EN 1504-2. Certificate Nr. 2032-CPR-10.11.
- It is certified as root resistant according to UNE CEN/TS 14416 EX:2014.

Fields of application

It is used for waterproofing surfaces made of concrete, renders, bricks, cement-blocks, mosaic, gypsum boards, wood, metal etc. Ideal in cases where high elasticity and good adhesion of the waterproofing layer is required. Suitable for waterproofing of substrates that suffer from contraction-expansion or vibration and show or are expected to show haircracks, such as flat roofs, terraces, balconies, above ground water tanks, swimming pools, inverted roofs etc. It can also be used for waterproofing of basements, internally or externally, against humidity or water under pressure.

Directions for use - Consumption

The content of the 25 kg bag (component A) is added into the 10 kg of liquid (component B) under continuous stirring, until a uniform viscous mixture is formed, suitable for brush application. The entire surface of the substrate should be dampened well, but without creating any water puddles. Depending on the water effect, the material is applied in 2-4 layers. Layers thicker than 1 mm should be avoided, because the material may crack.

Consumption: 1.70 kg/m²/mm.

Packaging

- Combined 7 kg package (5 kg comp. A + 2 kg comp. B), in white color.
- Combined 18 kg package (12.9 kg comp. A + 5.1 kg comp. B), in white color.
- Combined 35 kg package (25 kg comp. A + 10 kg comp. B), in grey and white color.



AQUAMAT-MONOELASTIC

Elastic, fiber-reinforced, one component, cement-based brushable waterproofing slurry



Description

AQUAMAT-MONOELASTIC is an elastic, one component, brushable waterproofing slurry. It consists of a cement-based powder mortar enriched with resins. After hardening it forms a seamless and jointless membrane offering the following advantages:

- Crack-bridging ability.
- Total waterproofing against water pressure up to 7 atm, according to DIN 1048-5.
- Protection of concrete from carbonization.
- Vapor permeability.
- Resistance to ageing.
- Bonding to wet surfaces without priming.
- Simple and low-cost application.
- It is classified as a coating for surface protection of concrete, according to EN 1504-2. Certificate Nr. 2032-CPR-10.11.
- It is certified as root resistant according to UNE CEN/TS 14416 EX:2014.

Fields of application

It is used for waterproofing surfaces made of concrete, renders, bricks, cement-blocks, mosaic, gypsum boards, wood, metal etc. Ideal in cases where high elasticity and good adhesion of the waterproofing layer is required. Suitable for waterproofing of substrates that suffer from contraction-expansion or vibration and show or are expected to show capillary cracks, such as terraces, balconies, above ground level water tanks, swimming pools, inverted roofs etc. Ideal for application on flat roofs, terraces, rooftops, balconies and damp areas to be covered with tiles (bathrooms, kitchens). It can also be used for waterproofing of basements, internally or externally, against humidity or water under pressure.

Directions for use - Consumption

The content of the 18 kg bag is added into the 5.0-5.4 l of water for application by brush, or to 4.1-4.5 l of water for application by trowel, under continuous stirring, until a uniform viscous mixture is formed, suitable for brush application. The entire surface of the substrate should be dampened well, but without creating any water puddles. Depending on the water effect, the material is applied in 2-4 layers. Layers thicker than 1 mm should be avoided, because the material may crack.

Consumption: 1.16 kg/m²/mm.

Packaging

Paper bags of 4 kg and 18 kg in white color and 18 kg in grey color.



REFERENCE LIST

Waterproofing of interior and exterior pools



Chalkidiki, Greece

For the waterproofing of the flat roofs, the basements and the wet areas of the MIRAGGIO THERMAL SPA RESORT in Chalkidiki, Greece, there have been used:

- AQUAMAT
- AQUAMAT-ELASTIC

Among other ISOMAT products that have been used in this project are:

- ISOMAT AK-20
- ISOMAT AK-22
- MULTIFILL SMALTO 1-8
- MARMOCRYL Fine



Bulgaria, Sinemorech

For the waterproofing of a hotel's private pool, there has been used:

- AQUAMAT-ELASTIC

Other ISOMAT products that have been used in this project are:

- MULTIFILL SMALTO 1-8
- WATERSTOP 1520
- ADIFLEX-B
- JOINT SEALING TAPE 12 cm





Romania, Mamaia

For the waterproofing of the Aqua Magic water park near Constanta, there has been used:

- AQUAMAT-ELASTIC

Other ISOMAT products that have been used in this project are:

- DUROPRIMER-W
- PLASTIPROOF
- BEVETOL-SPL
- ADIPLAST
- EPOXYCOAT-S

Waterproofing on floors and basements

Russia, Krasnodar

For the waterproofing of the local maternity home, there have been used:

- AQUAMAT-ELASTIC
- AQUAMAT-PENETRATE

Other ISOMAT products that have been used in this project are:

- MEGACRET-40
- AQUAFIX



Serbia, Belgrade

For the waterproofing of the METROPOL PALACE HOTEL premises, there have been used:

- AQUAMAT-FLEX

Other ISOMAT products that have been used in this project are:

- ISOMAT AK-ELASTIC
- MULTIFILL SMALTO 1-8
- MARMOCRYL Fine
- ADIPLAST



Visit our website.



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