

AQUAZIP MO 660

DATA SHEET

One-component osmotic cement mortar for waterproofing masonry and concrete structures and suitable for contact with drinking water.



Interior/Exterior



Interior/Exterior flooring



Sack



Spray



Metal trowel



Brush

Composition

AQUAZIP MO 660 is a one-component, waterproof mortar with osmotic action, grey and white, made from special binders, inorganic fillers, waterproofing agents and specific additives to improve processing and adhesion to the substrate.

Supply

- Special bags with moisture protection from approx. 25kg

Use

AQUAZIP MO 660 is a specific mortar for the rigid waterproofing of concrete or masonry surfaces, even with high positive hydrostatic pressure or negative pressure up to 2.5 atm.

AQUAZIP MO 660 is suitable for contact with drinking water in accordance with the required of Italian Ministerial Decree no. 174 of 6 April 2004.

Suitable for application by trowel, brush or using a suitably-equipped plaster sprayer, AQUAZIP MO 660 guarantees excellent workability and adhesion even on vertical surfaces and on different types of substrates, such as concrete, cement mortars and brick walls.

Particularly suitable where good resistance to negative hydrostatic pressure is required.

The main applications are as follows:

- waterproofing tanks or cisterns for drinking water;
- waterproofing irrigation channels;
- waterproofing foundation or retaining walls;
- waterproofing or treatment of interior and exterior surfaces in basements;
- waterproofing lift wells, tunnels or pits;
- waterproofing cementitious substrates subject to the presence of water, including under negative pressure;
- waterproofing fountains and ornamental pools.

Substrate preparation

Before applying AQUAZIP MO 660, the application surface must be cured, intact, dimensionally stable and mechanically resistant. In order to not to compromise adhesion of the product, any traces of oil, grease, wax, paints, varnishes, adhesive residues, efflorescence etc. must be removed beforehand, as well as any crumbling or loose parts.

Apply AQUAZIP MO 660 after saturating the application surface with pressurised water, avoiding the formation of pools or films of water on the surface. Before application, wait for the excess water to evaporate, using compressed air if necessary.

Concrete

The concrete substrate must guarantee a minimum compressive strength of 25 MPa and a tensile strength of at least 1.5 MPa. For new casts, the substrate must be sufficiently dry and cured (at least 28 days).

Any areas or sections of deteriorated concrete must be repaired beforehand using suitable Fassa Bortolo structural mortars.

Any water ingress and infiltration due to negative pressure must be sealed beforehand using AQUAZIP BLOCK.

The substrates must be prepared beforehand by shot peening, sand blasting, scarifying or mechanical abrasion cycles (diamond abrasive disc) in order to remove any roughness, traces of dirt, loose parts, encrustations, concretions, traces of paints, cement crusts or other contaminants, in order to make the substrate slightly rough and absorbent and not jeopardise adhesion of the subsequent waterproofing cycle.

To smooth over or repair voids, to correct slopes or areas of depression (dips and imperfections) use GAPER 3.30; for applications subject to high stress, treat the surfaces using GAPER 3.30, mixed with water and AG 15 diluted 1:3 (1 part AG 15 to 3 parts water).

Masonry

Completely remove any layers of plaster, render or other finishes on the surface so as to expose the masonry. Then evaluate the conditions of the masonry wall surface; this must be solid, mechanically resistant, perfectly clean and free of any traces of varnishes, adhesives, paints or parts that are crumbling or coming loose that may compromise adhesion of AQUAZIP MO 660. Carry out any repairs on the masonry wall using suitable structural mortar.

Before applying AQUAZIP MO 660, repair any cracks, cavities or gaps between bricks and blocks, making the substrate as uniform as possible. Moreover, for waterproofing irregular or uneven walls, the surface must also be levelled off and/or consolidated using a thick layer of suitable structural mortar (follow the instructions on the datasheet for the product used) and connecting the corners between adjacent walls and between walls and floor using suitable coverings.

Tubs, tanks and/or cisterns

When waterproofing tanks, tubs and/or cisterns, round off the edges and pre-fabricate the connecting elements along all the joints between horizontal/vertical surfaces and in the corners between walls using GAPER 3.30, mixed with water and AG 15 in the ratio 1.3 (1 part AG 15 and 3 parts water). The concrete must be properly prepared as described under "concrete".

All discontinuities, castings, any through elements or pipes and systems present on the application surfaces must be sealed beforehand using suitable products.

For correct application, please see the technical documents for each individual product described above.

Application

Mixing

Pour the contents of a sack into a bucket containing the amount of clean water specified in the technical data and mix using a mechanical stirrer at low speed for no longer than 3 minutes, until obtaining a fluid, uniform and smooth mixture. Leave the mixture to stand for about 5 minutes, then mix again for 30 seconds before application. Do not add to the mixture any type of additive or water in any percentage higher than specified.

Application

AQUAZIP MO 660 must be applied to the substrate in several coats by brush or metal trowel, alternating layers applied horizontally and layers applied vertically. The total application thickness should be around 3 mm, in at least 2 or 3 layers. If applying by hand, use a brush to apply the first coat of AQUAZIP MO 660, allowing the product to penetrate into the previously moistened substrate. Application by hand allows better penetration of the mortar into the pores on the substrate. If the brush is hard to stroke, do not add liquid to the mixture but rather further moisten the substrate.

The subsequent layer should be applied several hours after the previous one, depending on substrate absorption and temperature, and in any case never after more than 24 hours.

For application of AQUAZIP MO 660 on corners and/or edges, prepare covings or round off the substrate.

Always use the mixture within 60 minutes of preparation at +20°C.

Allow for consumption of around 1.5 kg/m² per mm of thickness if applying the product by hand (the specified consumption refers to application, on a flat and levelled surface, of a continuous layer of product; on irregular substrates, consumption may vary significantly).

To apply AQUAZIP MO 660 by plaster sprayer, the machine needs to be suitably equipped. Before application, saturate the substrate and apply the product in at least two coats, waiting the specified hardening times between the two coats. The total thickness of AQUAZIP MO 660 should be around 3 mm.

If needing to apply top coat plaster or render, the surface of AQUAZIP MO 660 should be left rough so as to facilitate adhesion of the subsequent coat.

Warnings

- Product for professional use.
- Always consult the safety data sheet before use.
- Do not use AQUAZIP MO 660:
 - on bituminous and/or mineral asphalt surfaces;
 - on insulating materials (lightweight substrates, expanded or extruded polystyrene panels, etc.);
 - on flexible or drivable surfaces subject to structural stress;
 - on surfaces that can be walked on and are left exposed (if necessary, apply a 4-5 cm thick cement screed over the product);
 - on gypsum floor screeds;
 - on foamed concrete blocks;
 - on surfaces with the presence of efflorescence and sulphates;
 - inside pools in direct contact with chlorinated water;
 - in the presence of strong ventilation or substrates exposed to direct sunlight. In this case, protect the treated surface with damp cloths;
 - in the event of imminent rain;
 - in environments with high levels of condensation; The hardening of AQUAZIP MO 660 is slower in the presence of high ambient humidity.
- Immediately after application of AQUAZIP MO 660, protect the treated surface against rain (for at least 24-48 hours), frost and/or quick drying. A temperature of +5°C is suggested as a minimum value for application and proper hardening of the product. Below this value setting would be delayed, and below 0°C the fresh or partially hardened product may be broken up by frost.
- After hardening, AQUAZIP MO 660 can only be removed mechanically.
- AQUAZIP MO 660 must only be used for the specified purposes in the manners described, and is intended exclusively for professional use.

AQUAZIP MO 660 must only be used in its original condition without the addition of other materials.



Storage

Store in its original packaging, in suitable, dry environment for no longer than 12 months. Once the product has expired, it must be disposed of in accordance with current legislation.

Quality

AQUAZIP MO 660 is subjected to accurate and constant checks in our laboratories. The raw materials used are rigorously selected and controlled.

Technical Data

Colour	White or grey
Granulometry	<0.6mm
Yield	approx. 1.5 kg/m ² with 1 mm thickness
Mixing water	23-27% (depending on the type of application)
Specific weight	approx. 1,850 kg/m ³
Application temperature	from +5°C to +35°C
Workability time (at 20°C, 60% RH)	60 minutes
Application of the subsequent coat	after 5 hours and no longer than 24 hours (depending on the temperature)
Application	7 days
Recycled/recovered/by-product content	The grey version of the product contains some recycled/recovered/by-product. The relevant declaration is available on request.

The performance values listed below are obtained by mixing the product with 25% water in a controlled temperature and humidity environment (20±1°C and 60±5% RH) for a thickness of 3 mm.

Technical features	Test method	Product performance	Requirement in accordance with EN 1504-2 - MC-IR (C) rigid systems with traffic
Compressive strength after 24 hours	EN 12190	≥ 8 N/mm ²	no requirement
Compressive strength after 7 days	EN 12190	≥ 20 N/mm ²	
Compressive strength after 28 days	EN 12190	≥ 30 N/mm ²	
Flexural strength after 24 hours	EN 12190	≥ 2 N/mm ²	no requirement
Flexural strength after 7 days	EN 12190	≥ 5 N/mm ²	
Flexural strength after 28 days	EN 12190	≥ 7 N/mm ²	
Ion content Cl ⁻	EN 1015-17	< 0.05%	≤ 0.05%
Adhesion strength	EN 1542	> 2.0 N/mm ²	≥ 2.0 N/mm ² (rigid systems with traffic)
Impermeability or coefficient of permeability to free water	EN 1062-3	W < 0.1	W < 0.1, Class III (low permeability)
Determination of water vapour transmission	EN ISO 7783	Sd < 1.5 m	Sd < 5m Class I (permeable to water vapour)
Resistance to positive and negative hydrostatic pressure	EN 14891 test method A7	positive pressure 2.5 atm	no requirement
		negative pressure 2.5 atm	
Reaction to fire	EN 13501-1	A1	Euroclass

The above information refers to laboratory testing; it is possible that in practical applications on site these may differ considerably according to the conditions in which the material is applied. In any case the user must check that the product is suitable for the intended application, taking all responsibility for its use. Fassa reserves the right to make technical modifications without notice.

Technical specifications regarding the use of Fassa Bortolo products for structural or fire prevention applications will only be officially valid if provided by Fassa Bortolo's "Technical Service" and "Research, Development and Quality System". If necessary, contact Technical Service in your country of reference (IT: area.tecnica@fassabortolo.com, ES: asistencia.tecnica@fassabortolo.com, PT: assistencia.tecnica@fassabortolo.com, FR: bureau.technique@fassabortolo.fr, UK: technical.assistance@fassabortolo.com).

Please note that for the aforementioned products, the assessment is required by the appointed professional, in accordance with regulations in force.