

AQUAZIP ONE PRO

DATA SHEET

One-component elastic polymer cement waterproof coating



Interior/Exterior



Interior/Exterior flooring



Sack



By hand



Metal trowel



Roller



Brush

Specifications

- Waterproofing agent applied in liquid form, classified CM-O1P in accordance with EN 14891, to be used under ceramic tiles bonded with adhesives.

Composition

AQUAZIP ONE PRO is a one-component elastic waterproofing coating based on grey Portland cement, selected sands, elastic resins and specific additives to improve workability and adhesion.

Supply

- Special sacks with protection against moisture, approx. 20 kg.

Use

AQUAZIP ONE PRO is used for the following purposes:

- Waterproof concrete surfaces, cementitious screeds and the like against positive hydrostatic pressure, even when subject to deformation under load;
- As a waterproof coating for interiors and exteriors, before laying ceramic tiles, even on existing floors;
- As waterproof elastic skim-coat for plasters and renders.

Certifications and regulations

AQUAZIP FAST PRO meets the performance requirements for class CM-O1P of EN 14891:2012 - (Liquid-applied water impermeable products for use beneath ceramic tiling bonded with adhesives).

AQUAZIP ONE PRO has obtained GEV EMICODE EC 1Plus classification, a voluntary mark relating to emissions of volatile and semi volatile organic compounds (VOC and SVOC) issued by GEV (Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte), which attests the product's very low emissions of volatile organic compounds.

Substrate preparation

The application surface must be cured, level and flat, intact, dry and free of rising damp, without stagnant water, dimensionally stable and mechanically resistant. Any traces of oil, grease, wax, paints, varnishes, efflorescence etc. must be removed beforehand, as well as any crumbling or loose parts. For use on renders intended for subsequent tiling, ensure that they are well bonded and have adequate surface strength, in accordance with UNI 11493-1.

Before proceeding with the waterproofing work, all critical points must be treated beforehand, such as:

- any cracks in the substrate;
- corners, edges and vertical overlaps;
- expansion joints and/or structural joints;
- conduits, drains, grills;
- gutter joints, pipe unions and drain pipes;
- steps and thresholds;
- skylights;
- system piping and through elements.

Concrete

The concrete substrate must guarantee a minimum compressive strength of 25 MPa and a tensile strength of at least 1.5 MPa. Any areas or sections of deteriorated concrete must be repaired beforehand using suitable Fassa Bortolo structural cement mortars. 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.

In the event of damaged or degraded parts, exposed reinforcing bars or voids, repair using suitable Fassa Bortolo structural mortars.

To correct slope lines or level off depressions (dips and imperfections), use GAPER 3.30; for applications subject to high stress, apply GAPER 3.30 mixed with a solution of AG 15 diluted 1:3 with water (1 part AG 15 to 3 parts water) on the surfaces.

Existing flooring

Verify adhesion of the old flooring to the substrate by tapping the surface. Any detached and/or partly detached tiles must be removed, and the voids must be repaired using GAPER 3.30. If missing or badly damaged, the grout in the joints on the existing flooring must be repaired. To clean the old flooring, abrade mechanically using a diamond grinding disc in order to remove any traces of dirt, loose parts, encrustations, concretions, traces of paints, cement crusts or other contaminants, make the substrate slightly rough and absorbent and improve and increase adhesion. Immediately after cleaning, remove the dust from the substrates using a suitable industrial vacuum cleaner.

It is recommended not to use a high-pressure washer to clean the old flooring, as this will lead to more water in the underlying substrate.

After cleaning, the slope lines must be checked and verified. In fact, any imperfections and/or irregularities present on the substrate, such as dips or depressions, may lead to areas where rainwater stagnates. To repair these sections, apply FASSAFLOOR PRIMERTEK ULTRA and then GAPER 3.30 mixed with a solution of AG 15 diluted 1:3 with water (1 part AG 15 to 3 parts water).

Cement substrates (mortars and screeds)

For wall applications, ensure that the render is well bonded to the substrate, surface-sound and free from dust, paint or friable parts. For subsequent bonding of ceramic or stone coverings, ensure compliance with UNI 11493-1 and UNI 11714-1.

For application on screeds, ensure that the substrate is mechanically sound, dimensionally stable, compact with good surface hardness, cured, clean, free from cracking, surface water pooling and with residual moisture below 3%. Any cracks or recasting on the screed must be structurally sealed using FASSA EPOXY REPAIR, following the procedures described on the datasheet. For screeds or surfaces with low superficial strength, scarify beforehand using an abrasive disc until obtaining a strong base and, after careful cleaning, if necessary treat the substrate with PRO-MST primer.

It is preferable not to wash the surfaces using water, so as to avoid adding more water to the underlying substrate.

Surface levelling or correction of falls must be carried out using GAPER 3.30. Before applying the AQUAZIP ONE PRO system on substrates exposed to strong solar radiation, it is recommended to lightly dampen the laying surfaces, avoiding the formation of surface water pooling.

Bituminous substrates (bituminous membranes, asphalt, etc.)

When waterproofing old bituminous substrates, first verify that these are intact and sound. Subsequently, apply a separating layer on the refurbished and restored bituminous surface consisting of a macro-perforated LDPE sheet (thickness not less than 0.10 mm – holes with diameter ≥ 40 mm and perforation percentage $\geq 15\%$ of the film surface), over which a micro-perforated LDPE sheet must be laid. Then create a fast-drying reinforced unbonded cement screed (for example FASSAFLOOR SV 472 PRO). The thickness of the screed must not be less than 5 cm.

Vertical overlaps

Before starting the waterproofing work on horizontal surfaces, near masonry and parapets, making openings to an appropriate depth so as to create a lodging for the vertical overlaps of the new waterproofing system. The openings must be at least 15-20 cm high compared to the new flooring. The openings must be levelled off using GAPER 3.30.

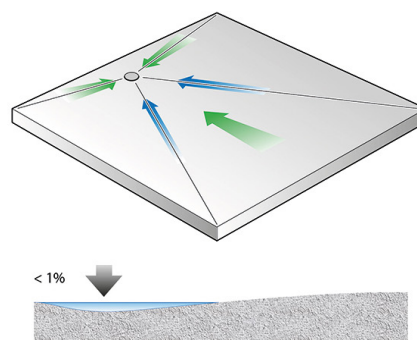
The AQUAZIP ELASTOBAND will be positioned along the connections between the horizontal plane and the vertical overlaps. The strip must be laid continuously on the application surfaces, first applying an at least 2 mm thick layer of AQUAZIP ONE PRO waterproofing coating, to a width exceeding the strip and making sure to leave the centre part free. For perfect sealing of the corners, use the appropriate preformed elements.

In the event of vertical overlaps in prefabricated polymer-modified bitumen membranes, the ADHESIVE STRIP FOR AQUAZIP SYSTEMS can also be used, consisting of a self-adhesive elastic sealing tape made from butyl rubber, and lined on both sides by polypropylene fibre non-woven fabric. The adhesive strip must be applied directly to the substrate, free of dust and above all perfectly dry. For application on porous and/or absorbent substrates, treat these beforehand with AQUAZIP ONE PRO and, once dried, apply the ADHESIVE STRIP FOR AQUAZIP SYSTEMS. For the treatment of the corners, simply cut the strip up to the centre and fold it over. For application it is recommended to remove half of the protective film and then apply the tape to the substrate. At the same time, the other part of protective film must be removed and strong pressure applied on the tape, also using a small silicone pressure roller.

AQUAZIP ONE PRO is also applied on the vertical overlaps and, after suitable curing, it will be covered with a layer of KI 7 or KZ 35 ZOCCOLATURA SOLFATORESISTENTE, lime-and-cement-based base coat plasters for exteriors and interiors, mixed with a mixture of AG 15 diluted with water in the ratio 1:3 (1 part AG 15 to 3 parts water). The base coat plaster must be fine-float finished, embedding wide-weave synthetic plaster reinforcing mesh during application.

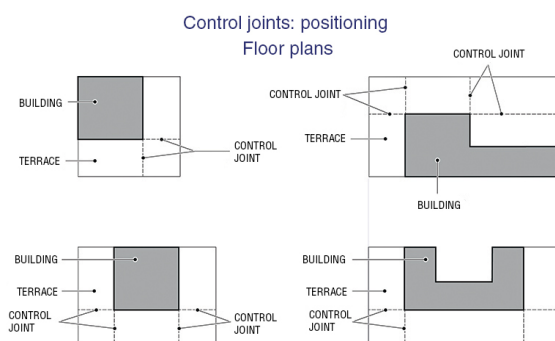
Slope lines

To avoid the formation of stagnant water on the application surface and guarantee the performance and durability of the waterproofing system, the screeds must be suitably prepared, in particular ensuring an adequate slope. For exterior paving, the application surface must be created and/or checked so that the slope towards the rainwater drains is not less than 1.5%. This value, in order to ensure the correct flow of water, is generally considered sufficient even in the event of possible settling of the different covering layers. It is not recommended to create slopes of less than 1%, as depressions and stagnation of rainwater may form on the surface, with possible infiltration.



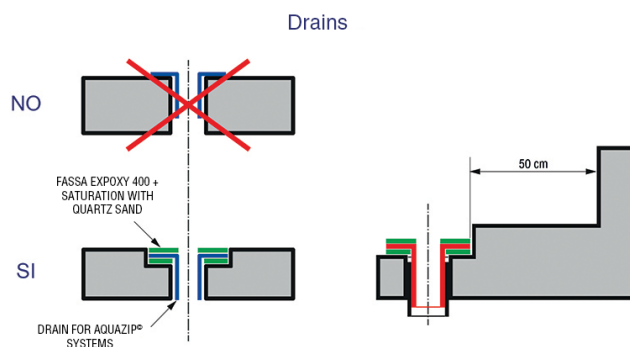
Joints

In accordance with UNI 11493-1 e 11714-1, movement joints in floor screeds are obligatory and must extend above the new flooring. The joints must subdivide the surface into square or rectangular blocks, and therefore be made at protrusions or in irregularly-shaped environments (i.e. "L", "U", etc.). For exterior applications, the maximum surface area that can be produced without dividing the screed is 9-10 m². If, due to the tile format used, continuity of the joints cannot be ensured in any other way, the tiles must be cut. Any movement joints present on the surface to be treated, as well as other critical points (junctions between floor and vertical surfaces, internal and external corners, skylights, pipe penetrations, grilles, gutter and downpipe connections, balustrade posts, etc.), must be suitably reinforced using AQUAZIP ONE PRO in combination with AQUAZIP ELASTOBAND accessories (tape, internal/external corner pieces, cross tape, etc.) or ADHESIVE TAPE FOR AQUAZIP SYSTEMS in the case of non-absorbent substrates. At structural joints, on the other hand, FASSA TPE 170, a waterproof strip made from thermoplastic elastomer on polypropylene non-woven fabric, must be used. The FASSA TPE 170 strip will be fixed to the substrates using FASSA EPOXY 400, interrupting the waterproofing system at the joints.



Rainwater drains

To allow adequate flow of rainwater, place the new drains inside a lodging that is suitably lowered from the application surface. The drains must have a suitable volume/capacity based on the surface area. For further information on this subject, refer to the specific standard UNI EN 12056-3:2001 (Gravity drainage systems inside buildings - roof drainage, layout and calculation). For correct application of rainwater drainage systems, refer to the product datasheets for FRONT DRAIN and VERTICAL DRAIN FOR AQUAZIP SYSTEMS.



Applying the covering

For application of ceramic or stone coverings, it is recommended to use highly-elastic cement adhesives classified S1 or S2 in compliance with EN 12004, such as AD 8 with FASSACOL LATEX S2, AZ 59 FLEX, AT 99 MAXYFLEX or FASSACOL EASY LIGHT S2 additives. If quick setting products are required, RAPID MAXI S1 can be used.

In accordance with the UNI 11493-1 application standard, where required, apply a compact layer of adhesive; this requirement must be considered in the presence of high mechanical and/or thermo-hygrometric stresses, special types and formats of tiles or when there are particular requirements for durability and safety.

Carry out spot checks to ensure that the adopted laying technique allows correct wetting of the back of the tile.

For sealing joints, it is recommended to use FASSAFILL cementitious grouts, or if high chemical resistance is required, epoxy-based sealants such as FE 838 or FASSAFILL EPOXY. It should be noted that the UNI 11493-1 application standard does not allow for "jointless" tiling (joint width less than 2 mm) in general. For all floors, open joint application must always be specified, with joints at least 5 mm wide, as this is the most effective solution to prevent the risks associated with high stress due to temperature and humidity on the tiles in outdoor environments.

Seal all expansion joints with FASSASIL NTR PLUS, using expanded polyethylene backing rod FASSAFOAM to correctly size joint depth, selected according to joint width.

Elastic sealing of skirting board

Form an elastic sealant bead along the floor perimeter by separating the skirting board by a few millimetres from the floor surface (at least 2 mm in accordance with UNI 11493-1). For elastic sealing of skirting boards, use FASSASIL NTR PLUS, a high-performance neutral-curing silicone sealant; sealing of the skirting (both above and below, between skirting and tile) must also be carried out using FASSASIL NTR PLUS.

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, homogeneous and lump-free mixture. Wait 5 minutes to allow complete dispersion of the resins and remix the mix (manual mixing is not recommended). The resulting mix remains workable for approximately 1 hour. For roller or brush application, the product must be mixed using the maximum specified water dosage.

AQUAZIP ONE PRO must be applied to the substrate in several coats, using a metal trowel, brush or roller. The total application thickness should be at least 2 mm in 2 layers. For application by trowel, use a notched metal trowel (4x4 mm). Use the smooth part of the trowel to apply the waterproof coating, pressing hard on the substrate to ensure maximum adhesion, then go over the waterproof coating using the notched part of the trowel. For applications subject to higher stresses, embed FASSANET 160 alkali-resistant fibreglass mesh or FASSATNT 80 needle-punched polypropylene non-woven fabric into the fresh first coat of AQUAZIP ONE PRO, avoiding voids in the waterproofing layer. Immediately afterwards, smooth over AQUAZIP ONE PRO with the flat side of the metal trowel, so as to obtain a uniform thickness. The reinforcing mesh or fabric must be pre-cut to size, overlapped at joints by at least 10 cm and interrupted at AQUAZIP ELASTOBAND accessories and ADHESIVE TAPE FOR AQUAZIP SYSTEMS, ensuring an overlap of at least 4 cm along the edges of the accessories. After at least 6 hours, and in any case once the first coat has set, apply a second coat of AQUAZIP ONE PRO, making sure to create a continuous and uniform layer that covers the first coat perfectly, always working in the same direction, preferably crosswise to the first layer, to ensure complete coverage of the substrate. AQUAZIP ONE PRO must be completely hardened before applying coverings. After applying the second coat, wait 1 day in normal humidity and temperature conditions (+23°C; 50% relative humidity) before laying the new ceramic covering.

Cleaning the equipment

Immediately after using AQUAZIP ONE PRO, clean all tools and equipment with water before the product hardens. The hardened material can only be removed mechanically.

Warnings

- Product for professional use.
- Always read the safety data sheet before use.
- Do not use AQUAZIP ONE PRO
 - on substrates subject to rising damp;
 - on bituminous and/or mineral asphalt surfaces;
 - on insulating materials (lightweight substrates, foamed concrete, expanded or extruded polystyrene panels, etc.);
 - on drivable or walkable surfaces without ceramic and/or stone coverings or subject to structural stresses;
 - in the event of imminent rain;
 - in the presence of strong ventilation or substrates exposed to direct sunlight; in this case, protect the waterproofed surface with damp cloths.
 - on mechanically unsuitable substrates
- Do not use as a sealing element on flat roofs; in this case, please refer to the stratigraphies proposed by standard UNI 8178-2.
- Protect the fresh product against rain, freezing and quick drying.
- When bonding the covering, walk carefully over the waterproofing membrane in order to prevent any possible damage.
- Use FASSA TPE 170 and the corresponding complementary products for waterproofing structural joints.
- AQUAZIP ONE PRO cannot be float-finished and therefore, in the event of possible imperfections on the treated surface, after waterproof cementitious coating has hardened, the surface can be abraded slightly out to remove any irregularities. Any abrasions on AQUAZIP ONE PRO before it has completely hardened could cause damage to the waterproofing system, limiting its characteristics.
- Thresholds must be installed, without exception, only after having laid the waterproofing sheet under the threshold. Otherwise the water-tightness of the threshold cannot be ensured. If the interior floor screed has already been created, its thickness can be used as a raised retaining element for fixing the AQUAZIP ELASTOBAND. If the screed has not yet been laid, use an "L" profile. A water drip profile must be created at the bottom of the outside section of the threshold step.
- Terrace edges and drainage edges of external tiled surfaces are exposed to the risk of retaining water in contact with the tile edge, with possible durability problems associated with water penetration into the tile substrate. To prevent this risk, special ceramic pieces equipped with drip guard systems or drip profiles must be used.
- For all products mentioned, refer to the most up-to-date version of the technical data sheet available at www.fassabortolo.com

Safety rules

Always refer to the safety datasheet containing the physical, toxicological and other data relating to operator safety.

Disposal and ecology

Dispose of the product/bag in accordance with national regulations.
For further information, see the most recent safety datasheet.

Storage

Store in a dry place for a period not exceeding 12 months. Once expired, the product must be disposed of in accordance with national regulations.

Quality

AQUAZIP ONE PRO undergoes accurate and continuous checks in our laboratories. The raw materials used are rigorously selected and controlled.

Technical Data

Appearance	grey powder
Apparent specific gravity	approx. 1030 kg/m ³
Minimum application thickness per coat	1 mm
Minimum application thickness per coat	2 mm
Granulometry	< 0.4 mm
Mixing water	23-26%
Yield	approx. 1.1 kg per mm of thickness
Maturing time	approx. 5 minutes
Specific weight of the mix	approx. 1500 kg/m ³
pH of the mixture	>12
Pot life of the mix at +23 °C and 50% relative humidity	approx. 1 hour
Ambient and substrate application temperature	from +5°C to +35°C
Waiting time before applying tiles	minimum 1 day at +23 °C and 50% relative humidity (variable depending on thermo-hygrometric conditions)

Standard EN 14891	Requirement to meet standard	Conformity
Impermeability (1.5 bars for 7 days of positive lift) EN 14891-A.7	No penetration and weight increase $\leq$ 20 g	No penetration
Crack bridging capacity in normal conditions (23 °C) EN 14891-A.8.2	$\geq$ 0.75 mm	$\geq$ 0.75 mm
Crack-bridging ability at low temperatures (-5 °C) EN 14891-A.8.3	$\geq$ 0.75 mm	$\geq$ 0.75 mm
Initial tensile adhesion strength EN 14891-A.6.2	$\geq$ 0.5 N/mm ²	$\geq$ 1.4 N/mm ²
Tensile adhesion strength after water immersion EN 14891-A.6.3	$\geq$ 0.5 N/mm ²	$\geq$ 0.8 N/mm ²
Tensile adhesion strength after heat ageing EN 14891-A.6.5	$\geq$ 0.5 N/mm ²	$\geq$ 1.7 N/mm ²
Tensile adhesion strength after freeze-thaw cycles EN 14891-A.6.6	$\geq$ 0.5 N/mm ²	$\geq$ 0.7 N/mm ²
Tensile adhesion strength after contact with lime water EN 14891-A.6.9	$\geq$ 0.5 N/mm ²	$\geq$ 0.8 N/mm ²
Tensile adhesion strength after contact with chlorinated water EN 14891-A.6.8	$\geq$ 0.5 N/mm ²	$\geq$ 0.8 N/mm ²

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 verify 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.