# AquaBlocker & AquaBlocker Liquid

## SMP Based Liquid Waterproofing Membrane

## **Product Description:**

Aqua Blocker® is a solvent-, water- and bitumen-free, as well as non-slump water-proofing sealant for buildings acc. to DIN 18195. Aqua Blocker® liquid is a sealing compound for horizontal surfaces. After it has cured completely, the sealant will be impermeable to water, bridges cracks up to maximum 5 mm and is resistant to natural groundwater which is aggressive to concrete.

#### Features:

Based on the SMP technology, Aqua Blocker® combines the reliable crack-bridging and waterproofing performance of a traditional, thick-layer bituminous coating with the unbeatable ease of handling and application of a bituminous emulsion. The solvent-, water- and bitumen-free Aqua Blocker® sticks very well on slightly humid substrates within the temperature range of +5° and +35°C.

Aqua Blocker® is certified by the building supervisory authority according to the "Prüfgrundsätze für Bauwerksabdichtungen mit Flüssigkunststoffen" (General test procedures for watertight seals in buildings using fluid plastics), issue 06/2006 as per the Construction Products List A Part 2, 1.12 (abP) for seals according to DIN 18195 Part 4, Part 5 and Part 6.

# Area of application:

Waterproofing of buildings:

It is used to provide long-lasting protection of structural elements in contact with soil, such as basements, buildings without underground level, foundations, floor plates, connections, pipe bushings against ground moisture, retained water, water not under pressure and accumulating seepage water according to DIN 18195.

**Vertical surfaces:** The thixotropic Aqua Blocker® is used for sealing vertical surfaces, e.g. basement retaining walls made of masonry, concrete and impermeable concrete.

**Horizontal surfaces:** Aqua Blocker® liquid is used for sealing larger horizontal surfaces, e.g. foundations, floor plates, as vapour seal in the commercial area, as well as on balconies and terraces under screeds in combination with tiles and plates. It is also suitable for filling of settlement and expansion joints in the commercial and industrial area as well.

## Prefabricated concrete parts:

Aqua Blocker® is certified by the building supervisory authority as external, striped sealing of structural elements made of concrete with high resistance to water penetration according to the Construction Products List A, part 2, item 1.4 (abP) against pressing water, not pressing water and ground moisture.

**Substrates:** Masonry (according to DIN 1035 Part 1, Chapters 1-11), cellular concrete/-blocks, lime-sandstone/-blocks, prefabricated concrete parts, concrete and watertight concrete.

# Preparing the substrate:

The mineral substrate must be solid, stable and plane, without any lumps of gravel, cavities, gaping cracks or burrs. The surfaces to be coated must be free from any residues of oil, formwork oil, grease, dust, sintered layers or other separation layers. Joints in masonry surfaces must be solidly filled, edges and fillets (leg length at least 4 cm long) have to be rounded. Irregular masonry surfaces with numerous exposed parts and cavities, as well as and chip-offs and defects should be filled or leveled prior to applying the Bostik repairing mortars. Create the coves in the wall/bottom area at least 24 hours before the beginning of the sealing works using the polymer-enriched Bostik SRM serie structural repairing mortars. Against groundwater under negative pressure, apply a two-layer surface sealing continuously from the front edge of the concrete base up to a height of 30 cm on the enclosing walls using the watertight Bostik CemenTech serie sealing slurries. Aqua Blocker® / Aqua Blocker® liquid can be applied directly on slightly damp substrates without needing a primer. Avoid standing water.

Warning: Bostik is only responsible for the product quality and cannot be held responsible for its mis-use except for the recommendations regarding where and/or how the product shall be used. It is not possible to give a guarantee for the results of operations for individual cases, due to multiplicity of possible uses and storage and processing conditions of the product, which are not under our control. Where necessary, the user should make their own tests. Due to local regulations, product performance may vary from country to country. This technical bulletin hereby is valid until it is renewed. BOSTIK's right to amend the products in accordance with technical developments is reserved. In cases concerning the safety of the products, the material safety data sheet (MSDS) containing this information should be consulted.



#### Application:

Do not process Aqua Blocker® / Aqua Blocker® liquid when the temperature of the structural parts or the environment is below +5°C. Aqua Blocker® is ready-for-use and can be used directly from the packaging. It should be evenly and continuously applied in two layers using a short-haired velour roller. In the corner and wall areas, and for small repair works, Aqua Blocker® can be applied using a broad brush or a brush. Aqua Blocker® liquid is directly poured out of the aluminum bag onto the substrate and is spread out with a notched trowel. It is evenly applied in two layers over the whole surface. You will need about 1.5 kg/m² per mm of layer thickness. Allow the first coat to dry before the next coat is applied. The ambient temperature and the temperature of the substrate should range between +5° C and +35° C. Press the reinforcement fabric into the first coat of Aqua Blocker® / Aqua Blocker® liquid over the whole surface. Aqua Blocker® / Aqua Blocker® liquid are not suitable for sealing of building joints. During processing the temperature of the material should be between +15° and +25°C.

## Hints for subsequent works:

Before starting the following works, allowed the Aqua Blocker® / Aqua Blocker® liquid to dry completely (about 24 hours at +20°C / 50% rel. humidity). When the seal has reached its full load-bearing capacity, it must be protected in accordance with DIN 18 195 using suitable protective, drainage or insulating sheets. When doing so, single-point and linear load concentrations should be avoided. The sheets can be fixed using Aqua Blocker®.

#### Field of application - Roof sealing:

For sealing and for repairs of chimney connections, individual roof lights, edge and corner areas on flat roofs, rainwater gutters, roof connections, as well as horizontal surfaces.

## Repairs of small areas

For instance, small-surface repairs refer to small roofs of garden sheds, max. 1 mm wide cracks, as well as partial damages of the existing roof seals and the applications mentioned before.

The substrate has to be rigid, capable of bearing loads and free from separating layers. After cleaning the substrates usually existing in the roof area, e.g. old rigidly laying sanded bituminized sheets/ bituminized sheets covered with slate chippings, aged PVC-sheets, concrete, and wood, can be repaired with Aqua Blocker®. To check the adhesion on PIB-/EPDM-sheets we recommend performing tests yourself. Remove old loosely laying sheets completely. Keep a minimum layer thickness of 2 mm after applying the Aqua Blocker® twice. Humid substrates (also due to humidity which penetrates from behind) can cause bubbles.

#### Surface restoration of concrete substrates:

The mineral substrate must be solid, stable and dry, without any lumps of gravel, cavities, gaping cracks or burrs. The surfaces to be coated must be free from any residues of oil, formwork oil, grease, dust, sintered layers or other separating layers. Chip-offs and defects should be filled or leveled prior to applying the Bostik repairing mortars. We recommend filling the pores of dry concrete with Bostik Renogrund PU as priming coat. The primer must be completely dry (about 8 hours at 20°C/50% relative air humidity) before Aqua Blocker® / Aqua Blocker® liquid can be applied. After priming, apply the first coat of Aqua Blocker® / Aqua Blocker® liquid within 36 hours. When the first coat can be walked on, the second coat will be applied. Keep a minimum layer thickness of 2 mm. If the surfaces are larger than 25 m², embed the reinforcement fabric over the whole surface into the first layer including the upturn edges and connections. Keep a minimum layer thickness of 2.5 mm (incl. fabric).

## Surface restoration of old substrates:

The substrate has to be rigid, stable and free from other separating layers. After cleaning, the following substrates usually existing in the roof area, e.g. old rigidly laying bituminized sheets which are sanded or with slate chips, and aged PVC-sheets can be repaired with Aqua Blocker®. We recommend applying Bostik Renogrund PU primer on the dry substrate. The primer must be cured (about 8 hours at 20°C/50% relative air humidity) before Aqua Blocker® / Aqua Blocker® liquid can be applied. After priming, the first layer of Aqua Blocker® / Aqua Blocker® liquid has to be applied within 36 hours. Embed the reinforcement fabric over the whole surface in the first layer including the upturn edges and connections. After the first coat can be walked on, the second coat will be applied. Keep a minimum layer thickness of 2.5 mm (incl. the fabric). Using this structure, 4 mm wide cracks can be bridged. For repairing of sanded bituminized sheets it will be necessary to apply another thin layer of Aqua Blocker® liquid. This layer must completely be covered with slate chippings.

#### Application:

Do not process Aqua Blocker® / Aqua Blocker® liquid when the temperature of the structural parts or the environment is below +5°C. Aqua Blocker®/ Aqua Blocker® liquid is ready-for-use and can be used directly from

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the packaging. Aqua Blocker® is applied using the short-haired velour roller, for Aqua Blocker® liquid use the notched Trowel

**Application with machines:** Bostik AquaBlocker can be sprayed by using a airless sprayers. Consult to Bostik Technical Service for machine use.

Cleaning: Remove cured mechanical residues using a spatula or similar tool.

#### Notes:

Bituminous substrates can change the color of the Aqua Blocker®. This discoloration is not a technical defect. Humid substrates can cause bubbles within the roof area. If the minimum thickness of the layer is not kept, cracks and structural failures can occur Pay attention to migration, plasticizers, negative interactions, permigration between the sealed substrates and the Aqua Blocker®. Only walk on roof surfaces restored with Aqua Blocker®/ Aqua Blocker® for maintenance purposes.

## **Technical data:**

Color	Light grey
Applicable thickness (mm)	2 coatings with at least 1.0 mm thickness of each dry layer
Crack Repairing	Min 5 mm
(Without Bostik FlexMesh mesh reinforcement)	(dry coat thickness at 2,5 mm)
Elongation @ Break (2 mm Film)	<u>&gt;</u> % 700
Shore A hardness (28 days, 23°C and a relative humidity of 50%)	~30
Drying time between first and second coat (h)	~ 8
Full curing (h)	~ 24
Application temperature	Between +5°C and +35°C
AquaBlocker temperature during the application	Between +15°C and +25°C
Resistance of hardened coating	Between -25°C and +80°C

Technical data are approximately provided according to a temperature of + 20°C and a relative humidity of 50%.

## Coverage:

Approx. 1,5 kg / m<sup>2</sup> for each 1 mm thickness.

The coverage amounts are theoretical and it is recommended to do coverage-controlled sample application before treatment.

#### Packaging:

Aqua Blocker: 1 kg tin and 14 kg plastic bucket in aluminum packages. Aqua Blocker Liquid: 14 kg plastic bucket in aluminum packages.

## Storage:

- They should be protected for water, frost and adverse weather conditions.
- They should be kept dry and cool on wooden pallets at between +10°C and +25°C in moisture free conditions.
- The torn and opened products should be closed immediately and consumed first.
- Maximum 3 buckets should be stocked on each other.
- Shelf life is maximum 12 months conditional to complying with the abovementioned storage conditions.

## **Health and Safety Information**

For health and safety instruction, first aid measures and spillage and disposal instructions, see separate Safety Data Sheet.

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