

PRODUCT DATA SHEET

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RITO WATERSTOP liquid -Bitumen free

MS-Polymer ® based construction industry sealant

Rito Waterstop construction industry sealant contains no solvents, water or bitumen. Rito Waterstop liquid is a self-levelling sealant for horizontal surfaces. After it has cured completely, the sealant will be impermeable to water, bridges cracks up to 5mm and is resistant to natural ground water which is aggressive to concrete.

Properties

Based on SMP technology, Rito Waterstop 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 Waterstop sticks very well on slightly humid substrates within the temperature range of +5° C and +35°C. It is applied as two coats with a short haired roller or similar.



Field 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 **Waterstop** is used for sealing vertical surfaces, e.g. basement retaining walls made of masonry, concrete and impermeable concrete.

Horizontal surfaces: Waterstop 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:

Waterstop® 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.

Preparation of 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 levelled. Create the coves in the wall/bottom area at least 24 hours before the beginning of the sealing works. 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 HEYDI K11 Flex slurry. Waterstop liquid can be applied directly on slightly damp substrates without needing a primer. Avoid standing water.

Bostik Industries Limited, Newtown, Swords, Co. Dublin. Tel: +353 (0)1 8624900 Fax: +353 (0) 1 8402186

www.Bostik.ie





Application:

Do not process Waterstop liquid when the temperature of the structural parts or the environment is below +5°C. Waterstop 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, Waterstop can be applied using a broad brush or a brush. Waterstop 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 reinforcement fabric into the first coat of Waterstop liquid over the whole surface. Waterstop liquid is not suitable for sealing of building joints. During processing the temperature of the Waterstop material should be between +15° and +25°C.

Hints for subsequent works:

Before starting the following works, allowed the **Waterstop 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 **Waterstop**.

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. aged PVC-sheets, concrete, and wood, can be repaired with **Waterstop**. To check the adhesion on PIB-/EPDM-sheets we recommend to perform tests yourself. Remove old loosely laying sheets completely. Keep a minimum layer thickness of 2 mm after applying the **Waterstop** 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 levelled.

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 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. aged PVC-sheets can be repaired with **Waterstop**. 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.



Reconstruction of garages/car ports:

Suitable substrates are OSB plates, tongued and grooved rough boarding. The substrate has to be rigid, stable and free from other separating layers. The primer must be completely dry (about 8 hours at 20°C/50% relative air humidity) before **Waterstop liquid** can be applied. After priming, the first layer of **Waterstop** has to be applied within 36 hours. When the first coat can be walked on, the second coat will be applied.

In case of OSB sheet and tongued and grooved rough boarding, embed reinforcement fabric into the first layer over the whole surface including the upturn edges and connections. Keep a minimum layer thickness of 2.5 mm (incl. fabric).

Application:

Do not **process Waterstop liquid** when the temperature of the structural parts or the environment is below +5°C. **Waterstop liquid** is ready-for-use and can be used directly from the packaging. Waterstop is applied using a short-haired velour roller.

Cleaning:

Remove cured mechanical residues using a spatula or similar tool.

Notes:

Bituminous substrates can thin and damage the **Waterstop.** 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 between the sealed substrates and the **Waterstop**. Only walk on roof surfaces restored with **Waterstop** for maintenance purposes.

Technical data:

Crack-bridging: min. 5 mm (without reinforcement fabric) at a dry coat thickness of 2.5 mm

Processing temperature/temperature of structural part: +5° to +35°C.

During application, the material temperature of Waterstop should be within the range of +15° and +25°C.

Drying time between the 1st and 2nd coating: ca. 8 hours at +20°C/50 % relative humidity

Fully through-drying: after approx. 24 hours at + 20°C, fully load-bearing

Consumption: ca. 1.5 kg/m² per mm of layer thickness, ca. 0.4 kg/m² when plates are fixed

Application: 2 coatings with at least 1.0 mm thickness of each dry layer.

Storage: Cool and dry. Frost sensitive. Storage life of approx. 9 months in the original packing.

Colour: Light grey

Packaging: 14 kg-container (aluminum bag)

Sales & Technical contacts at Bostik	Telephone	Facsimile	Email addresses
Sales	01 8624999	01 8404427	orders.bostik-irl@bostik.com
Technical Advice, Data & COSHH (MSDS) sheets	01 8624998	01 8402186	technical.ireland@bostik.com

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