

TECHNICAL DATA – AQUA-BT

AQUA-BT

Single component, bitumen modified waterproofing membrane

DESCRIPTION:

AQUA BT is a single component, liquid applied, bitumen modified, coal tar free, moisture cured polyurethane waterproofing membrane. When cured it provides a tough highly elastomeric, impervious barrier to moisture. Suitable for application by brush, roller or trowel.

FEATURES AND BENEFITS:

- Economical.
- User friendly.
- Labour saving, as it requires no mixing.
- Resistant to bacteria.
- Meets the criteria of ASTM C-836 and E-96.
- High Elasticity.
- Excellent adhesion.
- Coal tar free.
- For internal and external applications.

TYPICAL AREAS OF USE:

- Below grade concrete & masonry walls & footings
- Concrete & masonry basement walls and footings
- Bridges
- Tunnels
- Internal planter box walls and floors graded to drainage
- Between slabs
- Foundation walls
- Shower pens
- For internal & external applications in temperatures up to 35°C

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SURFACE PREPARATION:

The substrate must be surface dry, clean, smooth and free of voids & protrusions, curing compounds, loose materials, oil, grease, sealers and any other coating or contaminant that will affect the adhesion. The substrate must be determined to be structurally sound before application. Commencement of membrane installation shall be taken as acceptance of the substrate suitability and preparation by the applicator

- New concrete must have cured for minimum 28 days.
- Render must have cured for a minimum 28 days.
- Core filled blockwork must have cured a minimum 28 days
- Exposed brickwork & blockwork must be laid as face work with joints struck flush or rendered. Bagging is not an acceptable surface preparation.
- All concrete and masonry must be smooth, uniform and free of voids and protrusions.
- Repairs to concrete and masonry imperfections can be earned out with RLA Range of repair mortars. Contact RLA for additional information.
- Excavation should be below the height of the wall/footing junction to allow drainage away from wall/footing, minimise substrate contamination by excavation spoilage and adequate access to apply the membrane system to a clean and dry substrate. Prime all porous substrates with **Moisture Seal** as per the Technical Data Sheet.

JOINTS CRACKS AND FLASHING:

Apply a stripe coat of **AQUA BT** over all cracks up to 1.5mm width. All cracks over 1.5mm in width must be caulked with a polyurethane sealant.

All metal flashings must be primer with PRIMER PU.

MIXING:

Before application **AQUA BT** should be thoroughly mixed using a mechanical mixer at slow speed to ensure a homogenous material. Take care not to allow entrapment of air into the material. **DO NOT MIX IN AN UP AND DOWN MOTION AS THIS WILL INCORPORATE AIR.**

APPLICATION:

- **AQUA BT** may be applied by brush, squeegee, trowel, roller or airless sprayer. Over smooth surfaces, such as poured in place concrete, apply **AQUA BT** evenly in two 1mm coats.
- Provide adequate mechanical ventilation in enclosed & confined spaces.
- Saw cut and chase out all static cracks over 1.5 mm in width. Remove all dust and/or wet cut slurry from chasings, then prime, fill and seal with **RLA Fillet and Joint Seal** before application of the membrane.
- All cement based concrete or masonry repair must be fully cured before applying any component of the membrane system.
- Where expansion joints in the structure are unavoidable, caulk all joints with **RLA Fillet and Joint Seal**. Refer **RLA Fillet and Joint Seal** Technical data sheet for application instructions.
- **Moisture Seal** primer coats must be dry before the application of **RLA Fillet and Joint Seal** or **AQUA BT**.

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- Apply **RLA Fillet & Joint seal** to all internal angles at all footing/wall, wall/wall & graded floor/wall junctions.
- Membrane can be applied using a brush, roller, trowel or squeegee

- Apply evenly to avoid thin spots, air entrapment or pin holes.
- Each coat should have nominal wet film coverage of 1lt / m² or 1mm thick. A wet film gauge should be used regularly to check coverage rate of each coat (1mm = 1000 microns).
- Apply second coat after the first coat has cured for a minimum 24 hours without delay.
- Install protection board as soon as membrane is cured without delay.
- Use appropriate barricading to protect installed membrane surfaces from following trades. Avoid long exposure to UV before recoat or covering with protection board.
- If membrane must not be left exposed for prolonged periods before the 2nd coat is applied,
- A protection board or other suitable cover must be installed to protect the membrane surface from damage and contamination until the second coat can be applied.
- Must not be applied if it is raining or if rain is imminent
- To be applied directly over protective coatings
- Not to be used as a wearing surface for foot or vehicle traffic
- Do not apply where the surface temperature is below 10°C or greater than 35°C
- Not suitable for direct tiling. APPLICATION OF SCREED REQUIRED prior to tiling

MEMBRANE PROTECTION:

As soon as possible after completion of a successful water test or visual inspection and /or repairs, cover membrane with approved protection board or geotextile drainage composite. All horizontal and vertical membrane must be protected.

COVERAGE:

Coverage rate will depend on surface roughness and porosity. This is a minimum 2-coat system; each coat should be applied at a rate of 1 m² per litre = 1mm wet film thickness. A minimum of 24 hours should be allowed between coats. To ensure optimum performance, two coats of membrane must be applied to achieve a final, consistent minimum dry film thickness of 1.5mm (approx. 10m² per 18.9Lt pail). The 2nd coat should be applied perpendicular to the 1st. Do not thin with solvents or add fillers. The regular use of a wet film gauge during application is recommended to ensure correct film build of approx 1mm per coat during application.

CURING:

At 24°C and 50% RH allow each coat of **AQUA BT**, horizontal and green concrete to cure 16 hours minimum. Cure time will vary depending on temperature and humidity.

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If more than 48 hours pass between coats the surface must be re-primed. **AQUA BT** is very sensitive to heat and moisture. Higher temperatures and/or high humidity will accelerate the cure time. Use caution in thickness of application. Limit single coat thickness to 1016 microns.

CLEANUP:

Equipment should be cleaned with an environmentally safe solvent, as permitted under local regulations, immediately after use. Hand towels can be used to clean tools.

LIMITATIONS:

- When applied over a screed where service temperatures 30 Degrees Celcius and above a moisture barrier must first be applied. Consult Aftek technical department for support.
- Membrane **must not** be installed directly on wet, contaminated, or friable substrates.
- This is not a vapour barrier and will not resist a negative side head of hydrostatic pressure. Apply two coats of **AFTEK** Moisture Seal as per the Technical data sheet.
- Do not thin with solvents or add fillers.
- All below grade applications are to be considered damp, requiring **Moisture Seal** as a primer.
- Rate of membrane cure will be inhibited when air or substrate temperatures are below 5 Degs C.
- When used in areas subject to ambient conditions below freezing special installation precautions must be taken. Contact AFTEK for advice before commencing work.
- Must be applied as a 2 coat system.
- Requires atmospheric moisture to fully cure. It should not be used in totally confined or air free spaces.
- Back filling of drainage media, soil or drainage aggregate should not be carried out until membrane is fully cured and covered with adequate protection board.
- **AQUA BT** is **not** warranted for applications directly under tiles, either direct stick or under reinforced unbonded screeds.
- Membrane must not be used as an exposed finish or as top coating exterior membrane.
- Must not be applied over any form of lightweight concrete.
- Any intended application of membrane outside of recommended installation must be referred to **RLA** Technical Services for approval.
- Must not be used in chlorinated water.
- Below grade drainage must be located at a height lower than the membrane termination at the footing.
- Application and temperatures up to 35°C, temperatures over 35°C may cause leaching or bitumen bleed

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TYPICAL PROPERTIES at 7day cure @ 25°C & 50%RH

Hardness, ASTM D -2240	45 \pm 5 Shore A
Tear resistance, Die C, ASTM D-624	100 \pm 20pli 13.3 \pm kN/m
Tensile Strength	500 \pm 50 psi 3.4 \pm 0.3 MPa
Ultimate Elongation, ASTM D-412	500 \pm 50%
Specific Gravity	1.20 \pm 0.3
Total solids by weight, ASTM D-2369	91 \pm 3%
Total solids by volume, ASTM D-2679	89 \pm 3%
Viscosity at 27°C	40,000 \pm 20,000 cps
Volatile organic compounds, ASTM D-2369-81	100gm/Litre
Service Temperature	-31.7°C to 65°C *

*where Aqua BT is subject to temperatures greater than 35°C a moisture barrier is recommended as a primer.

COLOUR:

Black

PACKAGING:

Available in 18.9 Litre Pails.

AVAILABILITY:

RLA AQUA-BT is available Australia wide through the RLA Group distributor network. Please contact RLA Group 1800 242 931 to find out where your nearest stockist will be.

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TECHNICAL SUPPORT:

RLA Polymers manufactures a comprehensive range of high quality, high performance construction products. In addition, RLA Polymers offers technical support and on-site advice to specifiers, end users and contractors. Please contact your RLA Polymers sales representative or RLA Head Office for this service

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DISCLAIMER

The information and any recommendations relating to the application and end-use of all RLA products are provided in good faith based on RLA's knowledge and experience of the products. In applications, the differences in materials, and variances of substrates and actual site conditions can vary such that no warranty in respect of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be taken as inferred either from this information, or from any written recommendations, or from any other advice offered by RLA. The proprietary rights of third parties must be observed. All orders are accepted subject to our sale terms and conditions. All users should always refer to the most recent and up to date issue of the Technical Data Sheet for the product concerned, which is available on request. It is recommended that products should always be properly stored, handled and applied under tested and recommended conditions.
PLEASE CONSULT OUR TECHNICAL DEPARTMENT FOR FURTHER INFORMATION.