

Technical Datasheet ATAL BENTOFIX BFG 5300

Summary

Atal Bentofix 5300 is designed for installations of vertical or horizontal structures below ground level where there is a need to prevent the ingress of both water and hydrocarbons, (radon, methane, and carbon-dioxide). Atal Bentofix 5300 is a needle-punched GBR-C, comprising a uniform layer of powdered sodium bentonite encapsulated between a slit-film woven and a staple-fibre nonwoven geotextile. The woven fabric is coated with a low- permeability polymer polyolefin coating to achieve an immediate gas and radon gas barrier before hydration.



Advantages

- Protection against both water ingress and ground gases for below ground concrete structures.
- Complete surface contact between the bentonite- impregnated cover layer and the concrete ensures that small cracks and surface imperfections are sealed.
- Self-healing bentonite properties
- Quick and easy installation in almost all weather conditions
- Forms a tenacious mechanical bond to poured concrete when cast in situ, remaining in place if settlement of the substrate occurs
- No requirement for priming systems, joint taping or protection systems

Usages

Waterproofing of below-ground concrete structures, including:

- Habitable spaces.
- Plant rooms.
- Lift pits.
- Car Parks.
- Contig/secant/steel sheet piles.
- One-sided shutter construction.
- Two-sided shutter construction.

Properties at 20°C

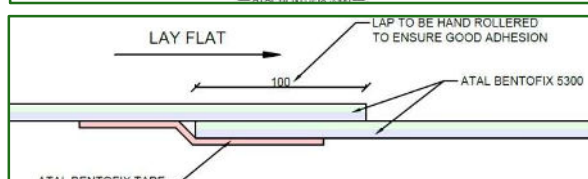
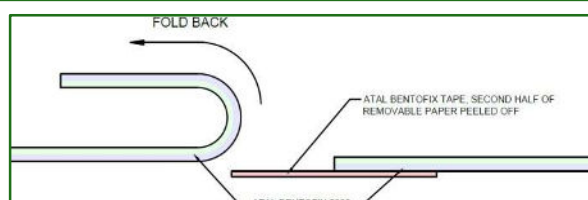
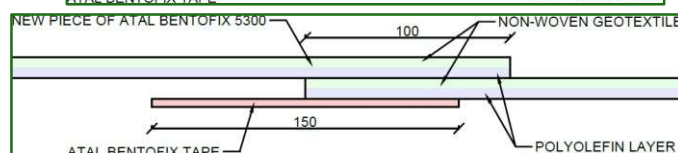
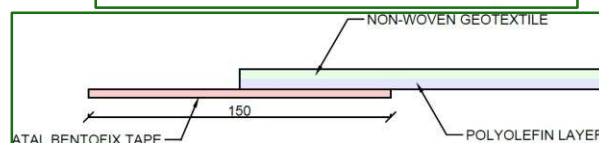
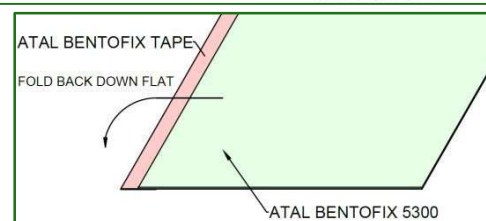
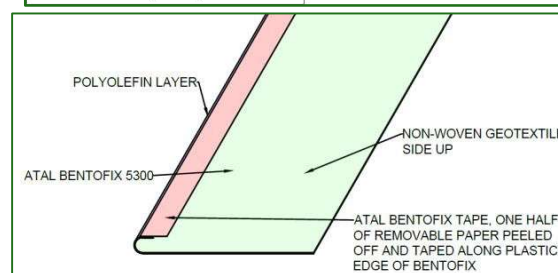
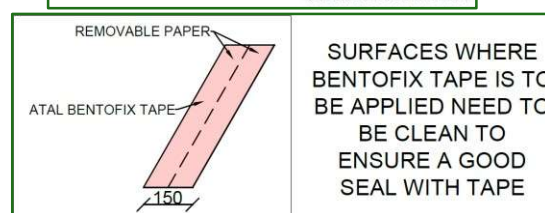
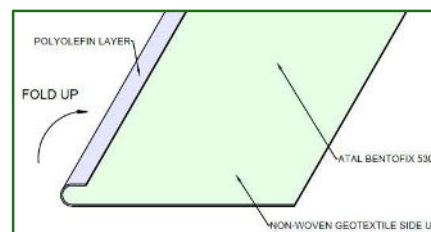
Tensile Strength	20 kN/m 11kN/m
Puncture Force	2500N
Peel Strength	>360N/m
Water Permeability	<5 x10 ⁻⁹ m/s
Thickness	6.00mm
Length	4.50m
Width	1.20m
Weight per roll	30kg
Radon Permeability	1.3x10-11 m ² /s

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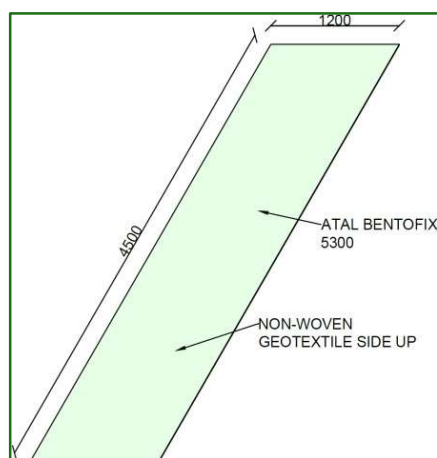
Instructions For Use

Horizontal Floor Slab Application

- Prepare the subgrade by installing a 50mm concrete/sand blinding layer or well-compacted hardcore.
- Install edge of slab shuttering.
- Roll out the membrane so that the nonwoven geotextile face is uppermost. Fix to the edge of slab shutters, ensure a 200mm lap over the shutter to lap onto.
- Ensure overlaps are at least 100mm in all instances.
- Ensure all laps are taped using Atal Bentofix Tape applied to the plastic face of the membrane (the underside of the membrane).
- Avoid wrinkles, folds and uneven laps.
- Stagger each membrane piece by 200mm to ensure four sheets of membrane do not lap in one spot.
- Seal pipe penetrations by cutting the membrane flush with the pipe, apply a fillet of Atal Bentonite Paste around the bottom of the penetration and secure Atal waterbar using tying wire around the centre of the pipe, ensuring at least 80mm concrete cover.
- Pour the concrete following the direction of overlaps to minimise the chances of a break in the waterproofing. In all applications, the vibrating poker used to compact the concrete mustn't come into contact with the membrane.
- Ensure waterbars are installed in all below-ground construction joints.



Taping Instructions for Below Slab



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Pre-Applied Vertical Application

- Install the membrane (either horizontally or vertically) with the nonwoven geotextile face towards the concrete.
- Fix using Atal Soft Washer Fixings (utilising Hilti BX or DX power tools) at 300mm spacing, 20mm from the outside edge, and 500mm centres within the centre of the membrane.
- Ensure overlaps between sheets are 100mm.
- Avoid wrinkles, folds and uneven laps.
- Stagger each membrane piece by 300mm to ensure four pieces of membrane do not lap in one spot.
- Ensure all horizontal laps face down.
- Extend Atal Bentofix 5300 the full depth of the formwork so that the membrane laps 350mm over the Atal Bentofix 5300 already cast into the slab edge and wall kicker, and allow no less than 300mm at the top of the formwork to provide ground slab continuity later if required.
- Seal tie bolt holes as per Atal's details after the concrete has cured.

Post-Applied Vertical Application

- Inspect the concrete wall and repair honeycombed/cracked concrete per Atal's details.
- Seal tie bolt holes as per Atal's details before applying the membrane.
- Apply Atal Bentonite Paste at internal 90° angles.
- Install the membrane (either horizontally or vertically) with the nonwoven geotextile face innermost.
- Fix using Atal Soft Washer Fixings at 300mm spacing, 20mm from the outside edge, and 500mm centres within the centre of the membrane.
- Ensure overlaps are at least 100mm in all instances, except at the wall-floor joint, where a 350mm lap is required.
- Avoid wrinkles, folds and uneven laps.
- Stagger each membrane piece by 300mm to ensure four pieces of membrane do not lap in one spot.
- Ensure all laps are taped using Atal Bentofix Tape applied to the plastic face of the membrane.

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Precautions

Health & Safety

Full health and safety data are given in the Product Safety Data Sheet.

Fire

Atal Bentofix BFG 5300 is non-flammable.

Storage & Shelf Life

Atal Bentofix BFG 5300 has a shelf life of 12 months when kept in dry conditions at a temperature of 5°C to 45°C. Storage at higher temperatures and high humidity may reduce the shelf life.

Packaging, Ordering & Coverage

Atal Bentofix 5300 is available in 4.5m x 1.2m rolls. Each pallet contains 32 rolls of Atal Bentofix 5300. Part pallets are available at request. When ordering, ensure that one roll of Bentofix Tape is purchased per 6 rolls of membrane.

Disclaimer

The technical information within this Technical Datasheet reflects our current knowledge of the product. It is intended only as information for users. As we do not know the envisaged application and installation conditions, it is the responsibility of the user to carefully check that the product is fit for purpose. Due to the different components at the installation site and the in-situ working conditions, Atal cannot provide any guarantee whatsoever for the result of the work. Claims arising from any legal relationship can only be recognized in the event of wilful intent or gross negligence, irrespective of the statements made here or advice provided verbally. In this case the user must prove and provide Atal in writing with all the information required to correctly assess the installation situation in good time. Subject to necessary product specifications or further developments.

Atal Technical Support

Atal offers nationwide and comprehensive technical support for all types of sites and construction projects.

Our team of CSSW qualified technical managers, technical advisors and site support operatives will be happy to help with our **free design service**, free site visits, and free product training.

Atal is proud to support your project from the beginning stages, right up to the end.

Atal CPD Seminars

Atal CPD Seminars offer in-depth overviews of structural waterproofing, ground gas protection, building regulations, and industry standards.

Our seminars are created by our team of CSSW qualified technical managers, capable of catering to a project of your choosing, and are available for everyone eager to learn about or continue their professions in the construction industry.

Book your FREE CPD Seminar here.

<https://ataluk.com/our-services/book-a-cpd>

For any enquiries, or help with your project requiring structural waterproofing, contact us via phone or email below.
01495717202 | enquiries@ataluk.com

Certified as Atal Bentofix BFG 5300 waterproofing system Cert No. 05/4256

