

Externally Applied Waterproofing Membrane

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Level of assurance needed to demonstrate NZ Building Code Compliance

Supporting documentation should include technical information by manufacturer and either an independent assessment or reference to an industry-based scheme



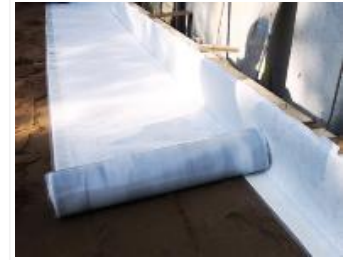
Newton confirms that this minimum level of assurance has been met or exceeded by the following:

CodeMark

[BCS164618-CMNZ](#)

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masterspec partner

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Technical Statement

Product Description

Newton 403 HydroBond is a high performance, self-healing, composite sheet membrane, available in two variants, with Newton HydroBond-GB adding ground gas resistance as well as the exceptional waterproofing capabilities of the standard membrane. When fitted above the raft support or to wall formwork, the membrane locking fleece is fully encapsulated in to the newly placed concrete, becoming fully-engaged to prevent water tracking. If the waterproof LDPE layer is punctured, the exposed hydrophilic coating expands, preventing water ingress, effectively sealing small holes that may be accidentally formed during fixing of the reinforcing steel or the placing and compaction of the concrete.

Scope of use

Newton 403 HydroBond provides a complete waterproof envelope to the structure, and is suitable for all below ground and earth-retained structures from domestic basements to the largest civil engineering projects.

New Zealand Building Code (NZBC)

The product will, if employed in accordance with the supplier's installation and maintenance requirements, assist with meeting the following provisions of the building code:

- **Clause B1 Structure:** Performance B1.3.3(e), B1.3.3(j), B1.3.3(m), B1.3.3(q)
- **Clause B2 Durability:** Performance B2.3.1(a)
- **Clause E2 External moisture:** Performance E2.3.3
- **Clause F2 Hazardous building materials:** Performance F2.3.1

Supporting Evidence

The product has and can make available the following additional evidence to support the above statements:



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Product Criteria

Design requirements

The Newton 403 HydroBond is externally applied waterproofing membrane with a swellable coating containing modified polymers. The chemical composition of the coating makes it start to expand when coming into contact with water (swelling rate appr. 150%). Due to it's special characteristics the membrane integrally bonds to concrete which prevents any build-up of humidity between the concrete and the membrane.

Installation requirements

The Newton 403 HydroBond is required to be designed and installed according to the details and drawings described in this technical and installation manual, by Newton System's trained and approved applicators and by those with an understanding of the requirement to waterproof-retained structures. The Newton 403 HydroBond cannot be post-applied. Where formwork is removed to expose the concrete, use Newton 108 HydroBond-LM or Newton 109-LM and lap to the Newton 403 HydroBond at the raft edge. Horizontal installation surfaces should be free of excessive standing water, particularly where concrete under blinding is not utilized. Newton 403 HydroBond is engineered for use under

reinforced structural concrete rafts or slabs of 150mm thick or greater. Installation temperature -10 to +40 °C.

Maintenance requirements

The **Newton 403 HydroBond** membrane should be inspected before installation of reinforcement steel, formwork and final placement of concrete. Repair small punctures (12mm or less) and cuts by applying a patch of Newton HydroBond centered over the damaged area and secure with Newton HydroBond Tape, pressing firmly using a hard roller to ensure a good bond. Repair holes and large punctures by applying a patch of Newton 403 HydroBond membrane, which extends 150mm beyond the damaged area. Seal all edges of the patch with HydroBond Tape, pressing firmly using a hard roller to ensure a good bond.

Warrantees

Correctly protected, the **Newton 403 HydroBond** will provide, under normal service conditions, a durable waterproof barrier for the life of the building to which it is installed; the expected life time of the building itself should be at least 50 years. Please note that this is not the guarantee. The waterproofing guarantee is provided by the specialist waterproofing contractor who installs the product.

Company Product Information

Environmental

Newton 403 HydroBond - material composition: Modified polymers, LDPE (Low-density polyethylene), polypropylene, and aluminium layers (gas barrier version).

Quality Assurance



ISO 9001 (Quality Management)

Relationships



The Braunschweig Civil Engineering Materials Testing Institute (MPA) 1201/094/16 B

Videos

[403 HYDROBOND](#)



Date last validated: **30 September 2019**



Date last updated: **30 September 2019**

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