



BUILDING PRODUCTS

QUALITY PLAN

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CodeMark(s) BCS #

Last Reviewed on 08/08/2017

Newton Systems Ltd

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Policy

Newton Systems will distribute products for the New Zealand market ensuring quality of these products are suited to their intended use.

Newton Systems will provide materials / product to water proofers, builders & installers under this Building Product Quality Plan.

Introduction

Newton Systems was formed in January 2014; due to demand for an alternative solution for Waterproofing solutions which would be competitively priced & that would be a suitable material for the building market.

Although the systems have already obtained the BBA and BDA accreditation's, through Newton Waterproofing Systems Ltd in the UK formed in 1849, it was very important to us to mirror this for New Zealand, we decided in 2015 that the materials / products needed to have an appraisal from a suitably experienced testing house in New Zealand. We asked the Building Element Assessment Laboratory (BEAL) to carry out an appraisal of our products. The appraisal would demonstrate to councils, clients and our distributors that the materials / products covered by the appraisal when installed according to our technical manual, would comply with the relevant clauses of the New Zealand Building Code.

Contact Details

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Reference Documents

1. Building Act 2004 and amendments
2. Building Regulations & Building Code
3. Compliance documents supplied by the Department of Building and Housing
4. BEAL's Standard for a Building Product Quality Plan
5. Suppliers' Technical Literature or documents
6. Technical information supplied by Newton Systems
7. Trade literature supplied by Newton Systems
8. Newton Systems' Products Installer Training Manual(s)

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PRODUCTS covered by this BPQP

	Product Name	Scope of Use
1	Hydrobond 403	As a continuous membrane to permanent raft and wall formwork such as the raft blinding and piled walls of reinforced concrete earth-retained structures.
2	Newton System 500	An internally applied and fully maintainable basement waterproofing system for new-build or refurbished basements. Based upon our range of cavity drain membranes, drainage conduits, and sophisticated pumping and control systems and holds BBA certification (94/3010).
3		
4		

Note: Other products to be added as they are introduced to the market

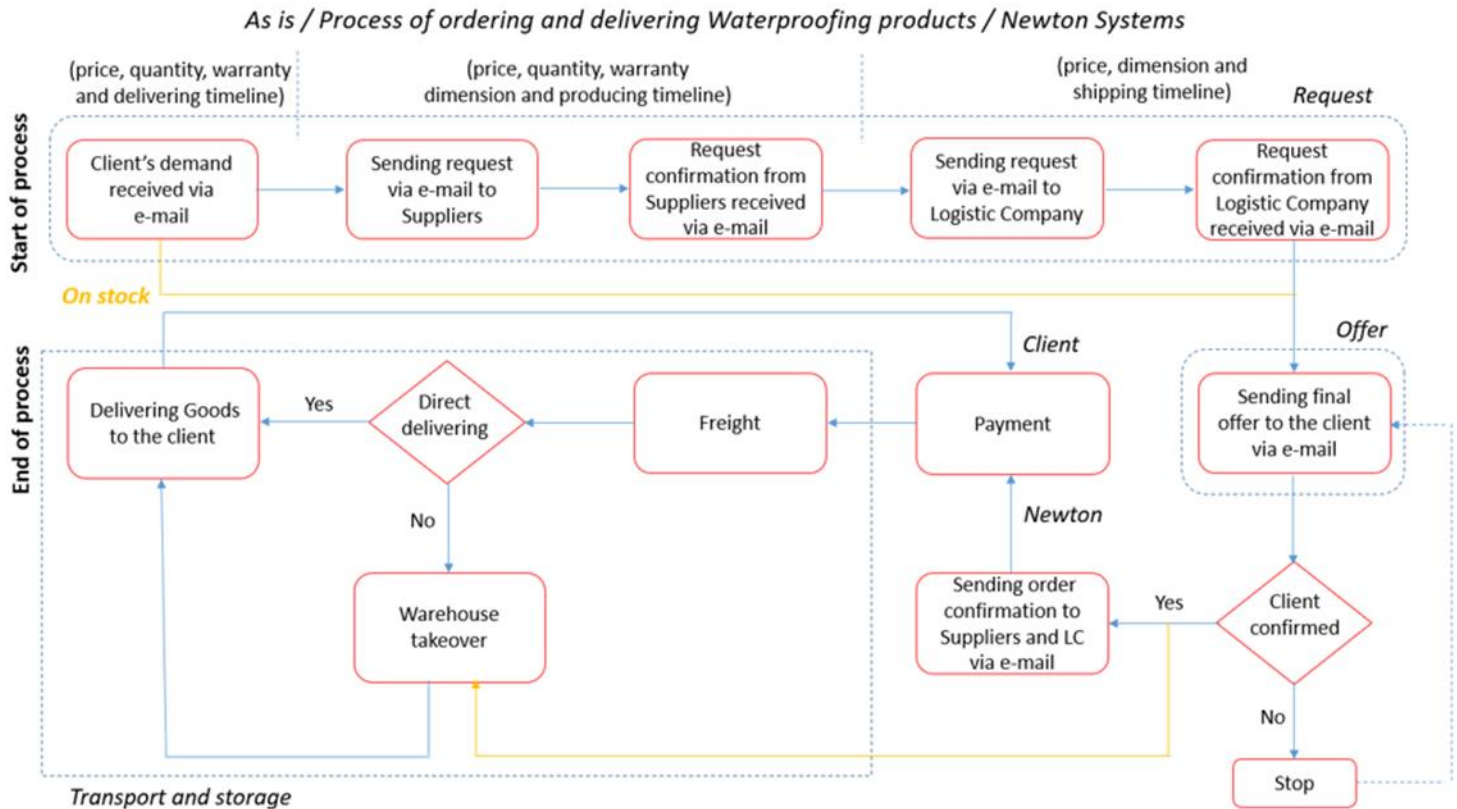
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Key RISKS covered by this BPQP

Key risk issues covering supply, assembly or manufacture, distribution, and installation or application:

- Materials supplied to us not meeting the relevant specification (included with our order)
- Materials supplied to us not properly identified
- Materials supplied to us damaged
- Materials supplied by us to by the manufacturer not properly identified
- Our Technical Manuals not up to date and displaying the version number
- Installation drawings not up to date and displaying the version number
- Training Manual(s) not up to date and displaying the Issue number
- Check List Sheets not being properly completed / filed by the Installer
- An Internal Audit of our BPQP not being carried out on a six-monthly basis
- An External Audit of our BPQP not being carried out at least once a year

Flow Chart covering ordering to receipt to distribution to installation



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Product Components Specifications & Descriptions

Specifications of the products supplied by us:

For the Newton Systems Hydrobond 403 and Newton System 500, the specifications for each component can be found in the Newton Systems relevant Technical Manuals;

1. System 403 Hydrobond components:

- Hydrobond Tape – Double sided sealing tape
- Newton 108 Hydrobond -LM- Spray applied instant cure, seamless, rubber waterproofing membrane for the external waterproofing of basements, retaining walls and foundations.
- Newton Mesh tape- Fleeced detailed tape

2. System 500 components:

- M1 Newton 508_8mm Cavity Drain Membrane, Suitable for walls and floors.
- M3 Newton 508 MESH_8mm Meshed cavity drain membrane for walls and soffits. The membrane has nylon mesh welded to the face of the membrane to act as a key for plasters and renders.
- M11 Newton 503 Mesh_3mm Meshed cavity drain membrane for walls and soffits. The membrane has nylon mesh welded to the face of the membrane to act as a key for plasters and renders.
- M5 Newton 503_3mm Cavity Drain membrane for floors and walls.
- M4 Newton 520 eco_20mm cavity Drain Membranes Recycled High Density Polyethylene (HDPE) Cavity Drain for floors.
- M14 Newton condensation strip
- A1 Newton Multiplug
- IF 90 Newton Insulation fixing
- A5 Newton Water seal tape is a Butyl Tape used for jointing membranes.
- A6 Newton Water seal Rope is a Butyl rope in a 10mm bead used for jointing membranes when a flange seal is not possible.
- A7 Newton Overtape is a Black PVC backed one-sided tape used for connecting floor membranes to the Basedrain up-stand, Floor membranes to wall membranes, sealing abutting joints to Newton 503 and for repairs and reveal details.
- D1 Newton basedrain drainage channel is a White PVC drainage conduit designed to drain System 500 at the wall/floor junction and at construction joints to the floor. Has 18mm holes every 100mm along its length to receive water pressure at the vulnerable junction of wall and floor and at construction joints within the floor.
- D22 Newton Jointing Tape is purpose made white tape for the jointing of the Floordrain and basedrain drainage channel

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- D24 Newton basedrain Adaptor is a fitting to allow for connection to the Titan-Pro sump chambers and to 63mm O/D pipe for further connection to 110mm drainage pipe for where safe gravity removal of water is possible.
- D26 Newton Inspection Port is a formed section of Drainage channel to allow for drainage inspection and maintenance
- D3 Newton Floordrain is a white PVC drainage conduit designed to drain System 500 at the wall/floor junction and at construction joints to the floor. Has 18mm holes every 100mm along its length to receive water pressure at the vulnerable junction of wall and floor and at construction joints within the floor.
- D6 Newton Basedrain corner is a Pre-formed corner for the basedrain and floordrain.
- D7 Newton Basedrain T Piece is a Pre-formed section to allow connections of floordrain from the outer ring of basedrain across construction joints and thresholds.
- CPT Newton Control Panel-Pro is a Pump control panel with many unique features, which has been designed by Newton Waterproofing Systems to provide the ultimate in pump operation and diagnostics.
- CP & NP Newton Pumps are a range of manual or Automatic ground water pump from 250 to 750 watts, to be used with the discharge of water from the TPW within the System 500.
- Titan Pro Pipework is purposely configured pipe work for the Newton pump range including, non-return valves, bends and quick release unions
- TPW Newton Titan Pro White sump chamber

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General Description of Features and Benefits:

Newton Waterproofing Systems manufacture high performance waterproofing products and systems that have been tried and tested within the industry for over 60 years.

Newton System 403 Hydrobond

The System hydrobond 403 is a high performance, self-healing, composite sheet membrane, available in two variants. Both membranes have a hydrophilic polymer coating sealed and constrained between a layer of waterproof LDPE to the outer face and a polypropylene locking fleece to the inner face. Newton 403 HydroBond-GB includes a further layer of aluminium to provide higher resistance to radon, carbon dioxide and hydrocarbon gases.

Typical applications as a continuous membrane to permanent raft and wall formwork such as the raft blinding and piled walls of reinforced concrete earth-retained structures.

Key Benefits of system 403 Hydrobond

- Agrément certificated waterproofing system
- NHBC accepted waterproofing system
- Full mechanical bond to concrete prevents water migration between membrane and structure
- Hydrophilic coating provides self-healing of punctures to the membrane
- Very flexible - Resistant to movement and fissures in substrates
- The Hydrobond System completely encapsulates the structure
- Excellent resistance to the high alkalinity of concrete
- Third-party test certification for radon, carbon dioxide and hydrocarbon gases

Newton System 500

Newton System 500 is a range of internally applied high-quality cavity drain waterproofing membranes, that includes Newton drainage and pumping systems. Depending on the variant, Newton system 500 is suitable for the waterproofing of earth retained walls, vaulted soffits and floors and is guaranteed against deterioration for 50 years, with a life expectancy of the design life of the building (DIN 9001:2000) and supported by BBA Certification Number 94/3010.

The system 500 membranes are inert and, therefore, non-polluting to drinking water, highly resistant to water, alkaline, saline solutions and organic acids. It is also rot-proof, and resistant to bacteria, fungi and other small organisms.

Typical applications internal walls, soffits and floors.

Key Benefits of System 500

- Does not require extensive and damaging preparation to the wall surface
- Speed of installation
- Highly flexible and sympathetic to the structure

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- Provides vapour control when used with humidity control systems and can deliver a habitable environment
- Resistant to rot, chemically aggressive groundwater, acids and alkalines, efflorescing salts and hydrocarbon contamination
- Guaranteed against deterioration for 50 years, with a life expectancy of the design life of the building
- Completely maintainable

Inspection & Testing Requirements

Inspections of Components:

Quality inspections for each component, is conducted on receipt from the manufacturer and when supplied in less than the original lot, by the NEWTON SYSTEMS staff. These inspections are made against a written inspection procedure described in Appendix A.

Where measuring or testing equipment is used and relies on calibration, this shall be revalidated each year or as specified by the manufacturer.

Testing of Components:

Testing is an essential step in maintaining ongoing and continuous quality.

Samples of Hydrobond and system 500 membranes of each batch, are inspected upon delivery by the Newton technical adviser visually. Then inspected by the manager before approval is given for acceptance.

Random samples of the products are inspected/tested periodically by BEAL - Director to ensure compliance with the standard.

The Inspection/testing is to ensure the performance requirements under our appraisal document are maintained continuously. These procedures are made against a written sampling and testing procedure described in the Appendices.

<u>COMPONENT</u>	<u>RISK</u>	<u>CHECKLIST / TESTS</u>
Hydrobond 403	low	as per appendix A
Hydrobond Tape	low	as per appendix B
Hydrobond 108 Spray	low	as per appendix B
Newton Mesh Tape	Low	as per appendix B

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<i>COMPONENT</i>	<i>RISK</i>	<i>CHECKLIST / TESTS</i>
Newton 508 MESH	low	as per appendix A
Newton 508	low	as per appendix A
Newton 503 Mesh	low	as per appendix A
Newton 503	low	as per appendix A
Newton 520 eco	low	as per appendix A
Newton condensation strip	low	as per appendix A
Newton Multiplug	low	as per appendix B
Newton Insulation fixing	low	as per appendix B
Newton Water seal tape	low	as per appendix B
Newton Water seal Rope	low	as per appendix B
Newton Overtape	low	as per appendix B
Newton basedrain drainage channel	low	as per appendix B
Newton Jointing Tape	low	as per appendix B
Newton basedrain Adaptor	low	as per appendix B
Newton Inspection Port	low	as per appendix B
Newton Floordrain	low	as per appendix B
Newton Basedrain corner	low	as per appendix B
Newton Basedrain T Piece	low	as per appendix B
Newton Control Panel-Pro	low	as per appendix B
Newton Pumps	low	as per appendix B
Titan Pro Pipework	low	as per appendix B
Titan Pro White sump chamber	low	as per appendix B

Note: Where products are assembled by the manufacturer, there shall be checklists at each important stage of the assembly or manufacture.

All such records shall be kept for a minimum of 10 years.

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Storage and Despatch / Product Recall

Labelling Requirements:

- All important components are labelled or printed with batch serial numbers or use by dates included on each item or packet or box
- Completed or finished Products are labelled or printed with batch serial numbers or use by dates included on each item or packet or box
- Where a product has a 'certificate of conformity', the label shall include the 'mark of conformity' as set out in the Code Mark Scheme Rules and advised to the certificate holder
- All components need to be labelled or marked such that they can be easily identified and included in a product recall, should the need arise
- Where there is the potential for the component or finished product to become hazardous to transport people or users of a building, there shall be appropriate warning labels or **Safety Data Sheets** attached.

Storage Requirements:

- Products are stored in a clean dry area until released to a customer/applicator.
- The dispatch freight note will be filled out with customer address and products dispatched.
- A copy of the freight dispatch note goes with the product to the customer and the other copies stay in the book for end of the month charge out.

Product Recall

Upon receiving the notice of product falling outside the specification the following action is taken:

- Place all packed product on hold, clearly marking so and quarantine.
- Take samples and if possible determine why the product has failed.
- Trace back to isolate the failure using batch and serial numbers.
- Take corrective action to prevent future product failure.
- Inform all staff of the action taken.
- Implement all necessary action with the manufacturers and customer.
- Verify that all actions taken are working.

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Training of personnel

Newton Systems Limited New Zealand will ensure that all products are installed by trained and Newton approved installers who will have undergone the required training from Newton Systems New Zealand and or Newton Systems UK.

Installers All applicators will be experienced in the application and understanding of waterproofing system and have a basic knowledge of waterproof design. All applicators will be trained and approved by Newton Systems and have completed training and compliance with our BPQP procedures, especially the use of the Checklists described in the Technical Manual and or in this Building Product Quality Plan.

A Training Manual describes the training and application of these BPQP procedures.

A record of each trained and approved applicator will be kept in the BPQP

Once trained and approved each installer will receive the accreditation NSBC (Newton Specialist Basement Contractor) Newton Systems will provide the approved installer with an ID card of approval and will require that the training is updated and refreshed each year, ongoing inspections will be carried out throughout the year for quality assurance and further training as required.

All staff members are trained in the following areas.

1. Safe work practices
2. Product knowledge Training
3. Basic principles of waterproofing
4. Application of these BPQP procedures and all Checklists.

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BPQP Management & Audit Responsibilities

Management

- The overall responsibility for ensuring that this BPQP is implemented is the Managing Director Bill Candy. The person at head office responsible for carrying out periodic internal audits of this BPQP document and attachments is Bill Candy.
- Each Newton Systems, Approved Installer shall be responsible for the on-site application of this BPQP as it applies to their work and shall be responsible for having periodic reviews of their documentation and diary notes that are related to the BPQP.
- Each new installer will be required to attend a full training programme to ensure they are fully trained in applying any of Newton Systems Products.

Audit Requirements

- This BPQP will be reviewed **every six months** at head office by the management;
- The BPQP of each NEWTON SYSTEMS Approved Installer will be audited at least every year by NEWTON SYSTEMS.
- Use will be made of the checklist at the back of the BEAL Auditing Services Ltd. Standard document.
- Records of each audit completed will be filed in the BPQP file (folder) under the tab entitled NEWTON SYSTEMS, AUDIT BPQP.
- A copy of each audit record shall be forwarded to the Managing Director as soon as practical.
- Where there is a non-conformance found, a note for the reason shall be written into the checklist.
- Where the non-conformance is seen to be important (such as for a high or medium risk material) then a meeting with the relevant management people shall be held as soon as practical to:
 - a) determine the importance of the non-conformance;
 - b) determine who shall be responsible for correcting the non-conformance;
 - c) determine whether or not there needs to be a correction or addition to the BPQP documents;
 - d) write up a record of when the non-conformance was dealt with and the names of any other parties that may have been involved in achieving the corrective action. These notes should be filed in a manner that enables them to be easily found in the event that there is a repeat of the non-conformance.

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Certificate Holder Notification Responsibilities

- (a) the certificate holder notifies the product certification body in writing of any intended change to any of the following particulars:
- (I) the name, address, or contact details of the certificate holder:
 - (ii) any address of a location where a certified product is produced or manufactured:
- (b) the certificate holder notifies the product certification body in writing of any intended change, modification, or alteration to any of the following:
- (I) the certified building method or product:
 - (ii) the method of its production or manufacture:
 - (iii) the product quality plan prepared in respect of the certified building method or product:
 - (iv) the application or installation instructions for the certified building method or product:
 - (v) any documentation relating to the use and maintenance of the certified building method or product:
- (c) if the certificate holder has any reason to suspect that the certified building method or product does not comply with the Building Code, the certificate holder notifies the product certification body in writing of the reason for that suspicion:
- (d) if the certificate holder or the product certification body finds that a certified building method or product that has been released on the market does not comply with the Building Code, the certificate holder discloses that fact in disclosure statements published in a form that is acceptable to the product certification body and to the chief executive:
- (e) if the certificate is suspended or revoked, the certificate holder—
- (I) notifies all customers to whom the certified building method or product applies
 - (ii) immediately ceases using the certificate, the mark of conformity, and any reference to the number of the certificate.

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CUSTOMER INFORMATION	
Customer Name:	Customer Phone:
Customer Address:	
Contact Name:	Contact Position:
Customer P.O. No:	Invoice Number:
Product Number:	Product Description:
COMPLAINT INFORMATION	
Complaint Date:	Complaint Taken:
Complaint Details:	
First Response corrective Action:	
Suspected Cause:	
Corrective Action Person(s):	
Corrective Action Follow-up:	
What steps to consider avoiding a repeat of the problem:	
Date: _____ Name of person completing the Form: _____ Signature: _____	

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APPENDIX A – Checklist / Testing Hydrobond

1. Check for any visual damage to product
2. Visually check against a previously passed batch of product
3. Record check results in book
4. Samples of Hydrobond and system 500 are tested at least once a year to ensure compliance.

APPENDIX B – Checklist / Components

1. Check for any visual damage to product
2. Visually check against a previously passed batch of product
3. Record check results in book
4. Samples of Components are tested at least once a year to ensure compliance.

APPENDIX C – Checklist / New installers applicators

1. Inducted and trained on how to apply product
2. Company-Customer information recorded
3. Products distributed to be recorded when leaving the warehouse.
4. Approved installer ID Card received

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APPENDIX D – Checklist

CHECKLIST FOR NEWTON SYSTEMS APPLICATORS v1.2

NEWTON SYSTEMS TRAINING APPLICATION

APPLYING FOR SYSTEM_____TRAINING.

APPLICANTS NAME AND COMPANY DETAILS: _____

ARCHITECT/BUILDER/ENGINEER/WATERPROOFER: _____

INDUCTED AND TRAINED BY: _____

DATE: _____

- | | | |
|----|---|----------|
| 1. | Completed training for product purchased | YES / NO |
| 2. | Confirmation that the applicator is competent | YES / NO |
| 3. | Completed company- client information | YES / NO |
| 4. | Signed confirmation of periodic site visits. | YES/ NO |

SIGNATURE OF APPLICATOR/CLIENT: _____

COMMENTS: _____
