

Type A Waterproofing

A-03 SPECIFICATION SHEET

External Waterproofing of Block walls & RC Raft

Rev 3.0 - 18 November 2020



BUILD

WALL CONSTRUCTION:

Double skin of block-work with RC core

FLOOR CONSTRUCTION:

Reinforced Concrete (RC) Raft

NWI SCORE



This specification employs 1 form of waterproofing (Type A - Barrier Protection) to prevent ground water passing through the structural elements of the building to ensure that the desired internal environment is achieved. The effectiveness of the waterproofing is dependent on the Type A barrier membrane being 100% effective, especially over the mortar joints of the block wall and the wall/raft junction



NOTES

To improve the NWl score and provide a grade 3 environment install Newton CDM System as per Newton Specification Sheet AC-03.

The detailing of other building elements and termination details are available please contact our technical team.

SPECIFICATION

ANCILLARIES

Install appropriate Newton waterbars to all construction joints and service penetrations.

TYPE A APPLIED EXTERNALLY

Waterproof the structure with [Newton HydroBond System](#) consisting of pre-applied fully bonded membranes and fully bonded liquid applied membranes.

NEWTON WATERPROOFING INDEX

The Newton Waterproofing Index (NWI) is a unique scoring system that accurately assesses the level of risk and potential success of specific waterproofing specifications. The NWl score is awarded by a panel of experienced waterproofing design specialists and reflects the chances of success of that specification. The scoring system works in conjunction with the British Standard for waterproofing, which defines the three types of internal environments as Grades 1, 2 and 3.

A-RATED INSURANCE

Tailor made insurance policies available depending on the specialist contractor and specification.

Any specification/advice provided is only valid if used with products supplied by John Newton and Company Ltd (trading as Newton Waterproofing Systems). Newton Waterproofing Systems reserve the right to update product literature at any time. Please always refer to our website for the latest versions.

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A-03 SPECIFICATION OUTLINE

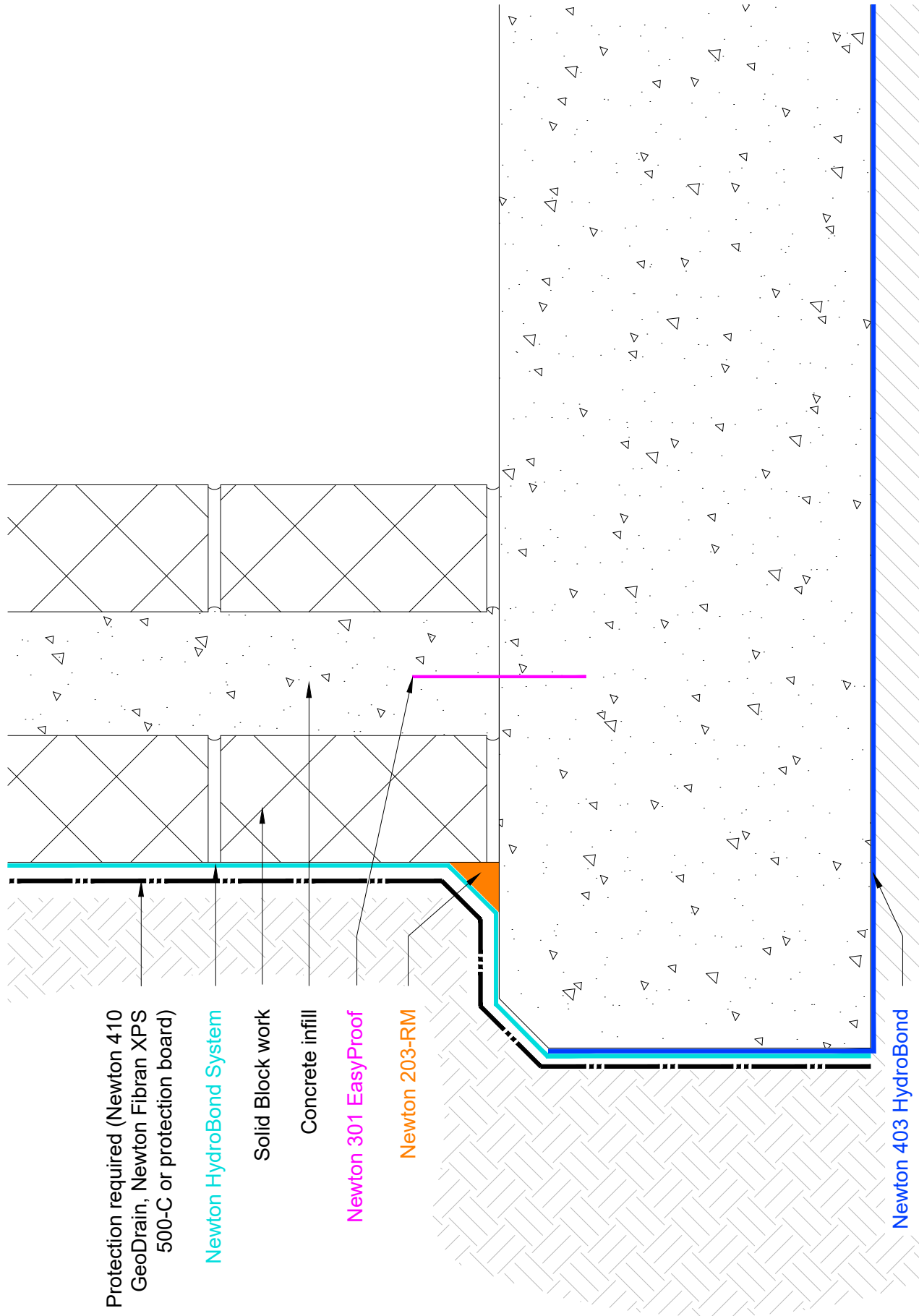
External Waterproofing of Block walls & RC Raft

The following specification provides 1 form of waterproofing

Specification	A-03
Description	Single waterproofing to blockwork structure. No gas protection.
Build	Block in two skins with reinforced concrete core walls, supported from an RC raft designed with flexural and through section crack widths limited to 0.2mm, and which conforms to BS EN 1992
NEWTON HYDROTANK SOLUTION	All construction joints (day joints, shrinkage joints, movement joints etc) should be waterproofed with Newton System 300 waterbars to limit water ingress thorough joints in the structure.
Newton 315 Polymer Waterbar	Option to include 3rd party certified Newton 315 Polymer Waterbar with NHBC approval A high grade, hydrophilic waterbar with high elasticity and high tensile strength, made from a polymer which swells when in contact with moisture.
Preparation	See E40/230 NBS Clause for Newton 315 Polymer-Waterbar
Application	Install the waterbar as described in the product datasheet Fix waterbars at the centre dimension of joints
NEWTON HYDROBOND SOLUTION	The Newton HydroBond System provides a complete and continuous waterproof barrier to the external surface of any below ground structure
Newton 403 HydroBond®	a mechanically bonded and self-healing membrane that is pre-applied ready for the placement of the concrete raft to a suitable smooth sound substrate such as a concrete blinding, closed cell insulation, void former system or drainage membrane such as Newton 410 GeoDrain .
Newton 403 HydroBond	See J40/112 NBS Clause for Newton 403 HydroBond
Newton 108 HydroBond-LM or	See J30/110 NBS Clause for Newton 108 HydroBond-LM
Newton 109-LM	See J30/110 NBS Clause for Newton 109-LM Terminate to DPC level as described within Newton Technical Drawings Seal around protrusions as described within the data sheets and Newton Technical Drawings.

A-03

External Waterproofing of Block walls & RC Raft



Type A Waterproofing

A-03 NBS CLAUSE

External Waterproofing of Block walls & RC Raft

The following document is to be read alongside the relevant Newton Waterproofing datasheets.

NEWTON J40 - NEWTON HYDROBOND SYSTEM

J40 Flexible sheet waterproofing/ damp proofing

297A WATERPROOFING MEMBRANE

Newton 403 HydroBond

A high performance, self-healing membrane with a locking fleece on the inner surface and a hydrophilic polymer coating externally. The membrane is BDA approved, NHBC accepted as Type A waterproofing, and the gas barrier variant provides resistance to radon, carbon dioxide and hydrocarbons.

Newton 403 HydroBond provides a complete waterproof envelope to the structure to achieve Type A (barrier) waterproofing suitable for Grades 1, 2 and 3 as defined by BS 8102:2009, are suitable for all below ground and earth-retained structures from domestic basements to the largest civil engineering projects, and can be used as part of the HydroBond® System with Newton 108 HydroBond-LM which is sprayed to the exposed walls of the basement after the temporary formwork is removed. Where space is tight, Newton 109-LM can be applied by roller or brush or small airless spray machine.

Newton 403 HydroBond can be used in conjunction with other Newton products to provide a co-ordinated and combined approach to the waterproofing of the whole structure that includes protection against water ingress to the deck, through construction joints, through and around service entries and to movement joints.

Correctly protected, the Newton HydroBond System will provide, under normal service conditions, a durable waterproof barrier for the life of the building to which it is installed; the expected lifetime of the building itself should be at least 60 years. The Newton HydroBond System is supported by BDA Agrément Certificate BAB 16-031/03/A and is accepted by the NHBC as a suitable waterproofing system for Type A Waterproofing to Grades 1, 2 & 3 – BS 8102:2009 System Manufacturer:

Newton Waterproofing Systems Ltd, Newton House, 17-20 Sovereign Way, Tonbridge, Kent, TN9 1RH

Tel: 01732 360095, Email: Tech@Newtonwaterproofing.co.uk, Web: www.newtonwaterproofing.co.uk

[Please click here to download the full Newton 403 HydroBond NBS Clause](#)

NEWTON J30 - NEWTON HYDROBOND SYSTEM

J30 TANKING

110A SEAMLESS RUBBER WATERPROOFING MEMBRANE

Newton 109-LM

Radon-certified, flexible, single-component, cold-applied and seamless rubber waterproofing membrane used primarily for the external waterproofing of earth-retaining structures such as basements and foundation walls.

Newton 109-LM is extremely puncture resistant with elasticity of 850% and a 95% recovery memory. The membrane becomes fully engaged into the substrate to prevent water tracking and is suitable for all below ground and earth-retained structures, ranging from domestic basements to the largest civil engineering projects.

Newton 109-LM is available in two variants: Medium Viscosity, for use in warmer temperatures, and Low Viscosity, for when it is cooler. Newton 109-LM is also a constituent product of the Newton HydroBond® System supported by BDA Agrément Certificate BAB 16-031/04/A and is accepted by the NHBC as a suitable waterproofing system for Type A Waterproofing to Grades 1, 2 & 3 – BS 8102:2009.

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[Please click here to download the full Newton 109-LM NBS Clause](#)

NEWTON J30 - NEWTON HYDROBOND SYSTEM

J30 TANKING

110A SEAMLESS RUBBER WATERPROOFING MEMBRANE

Newton 108 HydroBond-LM

Highly radon resistant, cold spray-applied, seamless rubber waterproofing membrane for the external waterproofing of basements (including covered decks) and foundation walls.

Newton 108 HydroBond-LM is very quick to apply, at up to 1000m² per day, and is not subject to the delays normally associated with liquid membranes as it can be applied in cooler and damper conditions, and without a primer.

Newton 108 HydroBond-LM is extremely puncture resistant, with high elasticity and a 95% recovery memory. The membrane becomes fully engaged into the concrete surface to prevent water tracking and is suitable for all below ground and earth-retained structures, ranging from domestic basements to the largest civil engineering projects.

Newton 108 HydroBond-LM can be used together with Newton 403 HydroBond to provide a complete waterproof envelope to the structure, forming a Type A (barrier) waterproofing solution suitable for Grades 1, 2 and 3 as defined by BS 8102:2009. Where space is tight, Newton 109-LM can be applied by roller, brush or small airless spray machine.

The Newton HydroBond System is supported by BDA Certificate BAB 16-031/04/A and is accepted by the NHBC as a suitable waterproofing system for Type A Waterproofing to Grades 1, 2 & 3 – BS 8102:2009.

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[Please click here to download the full Newton 108 HydroBond-LM NBS Clause](#)

NEWTON E40 - NEWTON HYDROTANK SYSTEM

E40 Designed joints in in situ concrete

120 CONSTRUCTION/ MOVEMENT JOINTS GENERALLY

Newton 301 EasyProof

Coated metal waterbar system used for sealing kickerless construction joints within retained concrete structures. It features an adhesive, reactive polymer coating on one of its sides which creates a permanent watertight seal that works immediately.

Installation is quick and easy with the waterbar fitted in place to the reinforcement steel with special clips so that after the placement of the concrete, the waterbar is fully embedded within the two adjoining elements, completely blocking the passage of water through the joint.

Because Newton 301 EasyProof is not fixed to one of the concrete elements as is the case with conventional waterbars, the forming of a kicker is not necessary. Where the walls are formed above a kicker joint, use Newton 315 Polymer-Waterbar.

Newton 301 EasyProof metal waterbar is certified to resist water pressure of up to 5 bar (50m), and is resistant to all types of naturally occurring ground water types.

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[Please click here to download the full Newton 301 EasyProof NBS Clause](#)

NEWTON E40 - NEWTON HYDROTANK SYSTEM

[E40 Designed joints in in situ concrete](#)

120 CONSTRUCTION/ MOVEMENT JOINTS GENERALLY

Newton 315 Polymer-Waterbar

A high grade, hydrophilic waterbar with high elasticity and high tensile strength, made from a polymer which swells when in contact with moisture. Ideal for sealing structures against water leaks to both cast-in-place concrete and precast construction joints.

The swelling is achieved through hydrophilic acrylate polymers, which are inseparably embedded within the butylene carrier material. This results in high elasticity and exceptional tensile strength, even when fully expanded within the joint.

Due to its high resistance to acids, alkalis and organic solutions, Newton 315 Polymer-Waterbar can be used to seal joints where aggressive water is expected such as within sewage treatment plants, biogas plants and liquid waste holding tanks.

Newton 315 Polymer-Waterbar swells up to 9 times its original size when in contact with water, sealing the joint fully and reliably. Newton 315 Polymer-Waterbar is particularly suited to sealing non-compressed joints such as at the junction between slab and wall.

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[Please click here to download the full Newton 315 Polymer-Waterbar NBS Clause](#)