

Type A Waterproofing

A-12 SPECIFICATION SHEET

Internal Waterproofing of Underpinning

Rev 3.0 - 01st July 2021

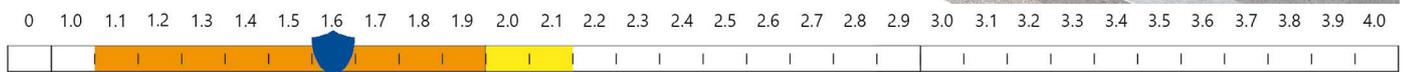


BUILD

WALL CONSTRUCTION:
Underpinned existing structure

FLOOR CONSTRUCTION:
Reinforced Concrete (RC) Slab

NWI SCORE



This specification employs 1 form of waterproofing (Type A - Barrier Protection) to provide the desired internal environment. The effectiveness of the waterproofing is dependent on the Type A system being effective, especially at the construction joints.



SPECIFICATION

ANCILLARIES

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

TYPE A APPLIED INTERNALLY

Waterproof the structure with [Newton HydroSeal System](#) providing barrier protection.

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 NWI 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.

NOTES

To improve the NWI score and provide a grade 3 environment install Newton CDM System as per Newton Specification Sheet AC-09.

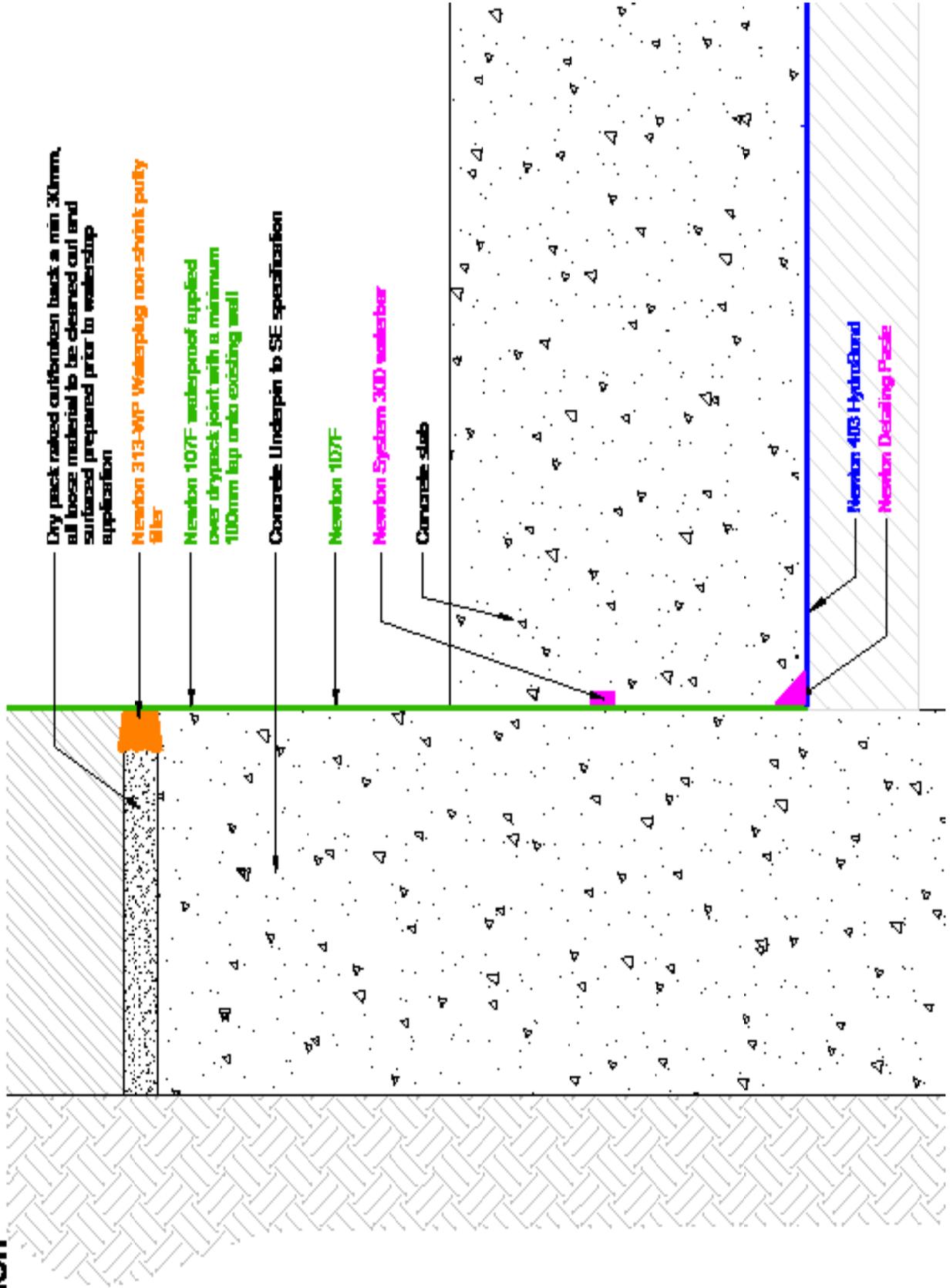
The detailing of other building elements and termination details are available within the Newton Waterproofing specification library.

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.

Section



Type A Waterproofing

A-12 OUTLINE SPECIFICATION

Internal Waterproofing of Underpinning

The following specification provides 1 form of waterproofing

Newton Specification Type	Structural Waterproofing.
Specification	A-12
Description	Internal waterproofing to underpinning. No gas protection.
Build	Concrete underpinning, Reinforced concrete slab 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	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
Place slab	Pay particular attention not to damage the 315 Polymer-Waterbar during vibration of the concrete.
NEWTON HYDROBOND SOLUTION	The Newton HydroBond System provides a complete and continuous waterproof barrier to the external surface of any below ground structure
Substrate Preparation	
Newton 403 HydroBond®	See J40/112 NBS Clause for Newton 403 HydroBond
Application	
Newton 403 HydroBond	Install the membrane as described in the product Installation Manual
Place slab	Place RC slab ensuring that the concrete is fully compacted, paying attention to compaction below the reinforcement steel and waterbar. Pay particular attention not to damage the 403 HydroBond membrane
NEWTON HYDROSEAL SOLUTION	Type A, internally applied waterproofing system.
Newton 107F	See Newton 107F Datasheet
Preparation	The dry pack used within underpinning contains a large amount of free lime which can cause limescale build up within the drainage channel of the Newton CDM System should water enter through the dry pack. Seal the dry pack with Newton 313-WP .
Priming	Newton 903-P
Application	See J10/510 NBS Clause for Newton 107F
Ancillaries	
Newton 313-WP	Fast setting, polymer compound that instantly stops running water or seepage through masonry or concrete substrates, becoming harder and more resistant when subjected to water pressure.
Newton XPS 500-C insulation	Protection for externally applied membranes.
Newton 203-RM	Fast setting, non-shrink repair mortar used for repairs and for bag-rubbing of porous surfaces.
Newton 908 LiquaBond	Bonding agent and waterproofing admixture for sand/cement mortar.

Type A Waterproofing

A-12 NBS CLAUSE

Internal Waterproofing of Underpinning

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

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.

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 315 Polymer-Waterbar NBS Clause](#)

NEWTON J10 - NEWTON HYDROSEAL SYSTEM

[J10 Designed joints in in situ concrete](#)

120A CEMENTITIOUS COATING

Newton 107F

Cementitious coating for the waterproofing and protection of concrete and masonry. Can be spray-applied so ideal for large projects. Suited to the waterproofing of reservoirs, tunnels, water tanks, basements, podium decks, flat roofs and balconies.

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[Please click here to download the full Newton 107F NBS Clause](#)

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:

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