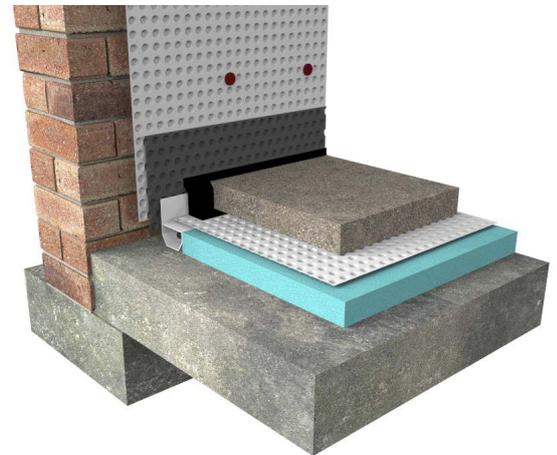


Type C Waterproofing

E-C-03 SPECIFICATION SHEET

Internal Waterproofing of Existing Structure

Rev 3.0 - 02 July 2021



BUILD

WALL CONSTRUCTION:

Existing brick

FLOOR CONSTRUCTION:

Existing slab

NWI SCORE



This specification employs 1 form of waterproofing (Type C - Drained Protection) to provide the desired internal environment is achieved. The effectiveness of the waterproofing is dependent on the Type C system being installed correctly.



NOTES

To improve the NWI score please see Newton Specification Sheet E-CA-04.

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.

SPECIFICATION

TYPE C INSTALLED INTERNALLY

Waterproof internally with [Newton CDM System](#) providing drained protection.

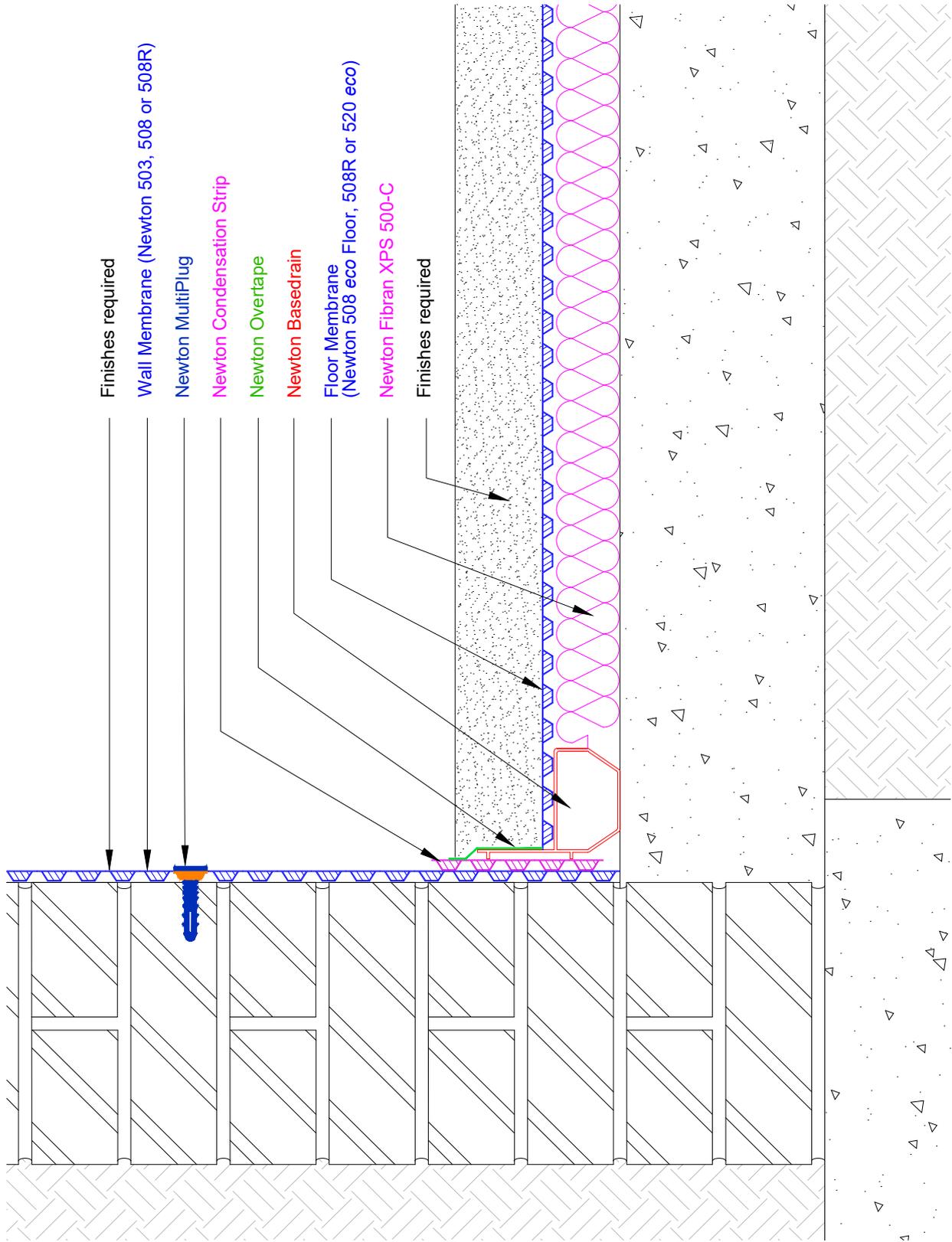
NEWTON WATERPROOFING INDEX

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.

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.

E-C-03

Internal Waterproofing of Existing Structure



Type A & C Waterproofing

E-C-03 SPECIFICATION OUTLINE

Internal Waterproofing of Existing Structure

The following specification provides 1 form of waterproofing

Specification	E-C-03
Description	Drained waterproofing to existing concrete slab and Existing Brick wall structure. No gas protection.
Build	Existing concrete slab placed within brick walls supported from existing foundations.
NEWTON CDM SYSTEM	Maintainable basement waterproofing solution ideal for new-build basements and refurbishment projects. Comprises four components: Cavity Drain Membranes, Drainage, Pumps and Control Systems. Complies with the British Standard for Waterproofing.
Substrate Preparation	
Walls	See J40/310 NBS Clause for Newton System 500 .
Floor	Horizontal concrete surfaces should have a surface finish to at least Class of finish U3 and preferably to class U4 or U5 as documented in 'General Specification for Civil Engineering Works' section 14: 'Formwork and Finishes to Concrete', namely a 'Uniform, dense and smooth surface'. Floor slab to be treated with Newton 906 Lime Inhibitor as per the product data sheet
Drainage Channels	Newton Basedrain should always be laid level and connected to the sump chamber or safe gravity drainage with at least two Drainage Connectors, see drawings CDM-P03 (Basedrain Layout & Parts) and CDM-P09 (Titan-Pro Pump System). Construction joints to the floor should be protected by Newton Floordrain, see drawing CDM-D01 (Construction joints protected by Newton Floordrain). For supporting walls detailing please see drawing CDM-D03. Newton Fibran XPS 500-C is placed below the Newton flooring membrane as a fully drained supporting spacer. The maximum floor load is 16 Mpa (1.6 tonnes/m ²). Newton Fibran XPS 500-C has a thermal conductivity of 0.035W/mk and as such will make a significant contribution to the U-value of the floor.
Floor preparation:	Floor to be no more than +/- 5mm over 2m in any direction and no more than 25mm over any dimension. Floor to be flood tested and and depressions over 10mm or over to be filled with appropriate repair product such as Newton 908 LiguaBond mortar.
Surface cracks (dead)	Fill with fine filler or 901-P mixed with sand and/or scrim with plasterers scrim
Surface Cracks (live)	Treat as movement joint - see below
Small holes or slight surface damage	Repair with appropriate filler
Joints	
Day/Shrinkage Joints	Newton Floordrain used as part of the floor drainage system should be placed above joints.
Movement Joints and Isolation Joints	IMPORTANT: Movement and isolation joints should be avoided if possible as they are very difficult to waterproof. If they need to be included, please speak to the Newton Technical Department who will confirm an exact specification for the joint.
Sump	If water collected by the system is to be removed by pumping the methods for forming of the sump chamber within an existing slab are included within the Titan-Pro pumping system Installation Manual. The Titan-Pro sump chamber must be surrounded by compacted concrete or placed within a concrete box and then concrete in place.
Installation	Install the Newton CDM Waterproofing System as per the Installation Manual. It is a requirement of the BBA Certificate that the system is installed by Newton Specialist Basement Contractors (NSBC) who are trained in the installation of the system.

Wall Membrane	<p>Install with as many fixings required to place the membrane to the wall. Add further fixings as required for wall mounted ancillaries such as dry-lining brackets, insulation ties or brick/block ties.</p> <p>Newton Condensation Strip is required at the base of wall membrane</p>
Drainage System	<p>Place above the slab within a spacer of Newton XPS 500-C.</p> <p>Place Newton Basedrain drainage channel to the perimeter and to any internal walls that are supported from the own strip foundations.</p> <p>Place Newton Floordrain above construction joints, door thresholds or where cross drains are required.</p> <p>The drainage system to terminate at the pumping system. Make connections to the Titan-Pro sump with Newton Basedrain Connectors.</p>
Floor Membrane	<p>Place the membrane to the floor, above the Fibran-XPS insulated drainage spacer.</p> <p>Joint the membrane with Newton Waterseal Tape at the overlapping flange.</p> <p>Seal the floor membrane to the permitter Basedrain drainage channel with Newton Overtape, sealed to the up-stand of the Basedrain.</p>
Protection	<p>Always required</p>
To Wall membrane	<p>Please see Reference sheet WF.</p>
To Floor membrane	<p>Please see Reference sheet FF.</p>
Newton 908 LiquaBond	<p>Bonding agent and waterproofing admixture for sand/cement mortar.</p>
Newton XPS 500-C insulation	<p>Insulated drainage spacer, or externally applied insulation, or protection for externally applied membranes.</p>

Type C Waterproofing

E-C-03 NBS CLAUSE

Internal Waterproofing of Existing Structure

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

NEWTON J40 - NEWTON CDM SYSTEM

[J40 Flexible sheet waterproofing/damp proofing](#)

290A HIGH DENSITY POLYETHYLENE STUDDED CAVITY DRAIN MEMBRANE

Newton CDM System

The Newton Cavity Drain Membrane (CDM) System is a maintainable basement waterproofing solution ideal for new-build basements and refurbishment projects. Comprising of four components: Cavity Drain Membranes, Drainage, Pumps and Control Systems, the Newton CDM System complies with the British Standard for Waterproofing and provides a Grade 3 habitable internal environment.

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[Please click here to download the full Newton CDM system NBS Clause](#)