

CDM 508 eco Floor

8mm Recycled Cavity Drain Floor Membrane

Revision: 11.2 - 18th January 2023
Code: M2

INTRODUCTION

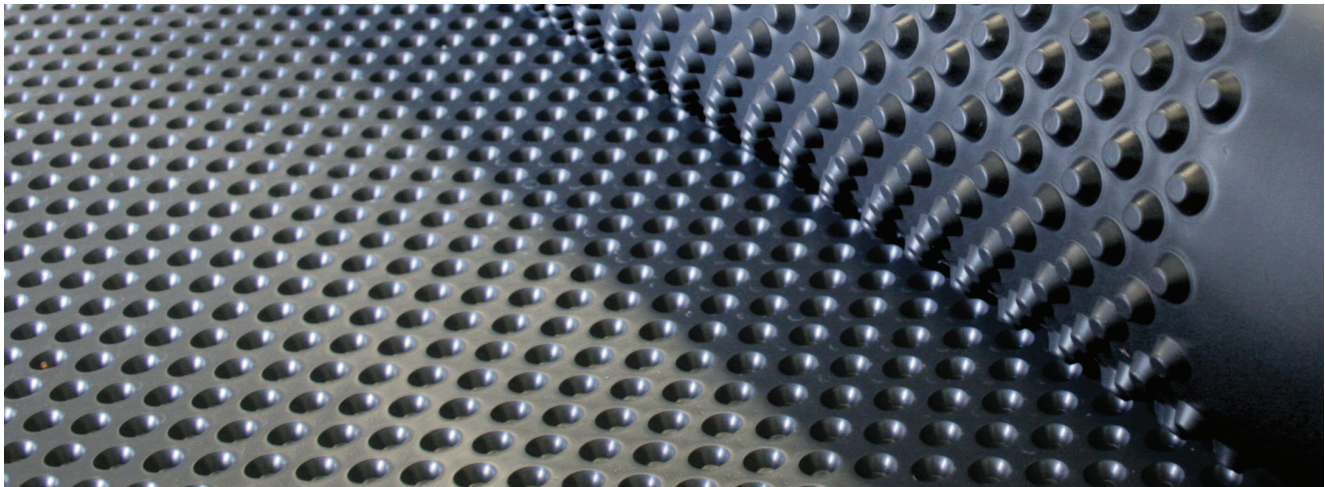
Newton CDM 508 eco Floor is a high quality and 100% recycled cavity drain waterproofing membrane, for use within the [Newton CDM System](#), our internally applied waterproofing system that also includes drainage and pumping systems.

Designed with more studs per square metre to deliver higher compressive resistance than standard cavity drain membranes whilst putting less load on the substrate, CDM 508 eco Floor is best suited for floor installations as part of a comprehensive CDM waterproofing system.

CDM 508 eco Floor is guaranteed against deterioration for 30 years, with a life expectancy of the design life of the building (DIN 9001:2000), and supported by BBA Certification Number 94/3010.

CDM 508 eco Floor is inert and non-polluting to drinking water, resistant to water, alkalines, saline solutions and organic acids, and not affected by minerals and hydrocarbons. It is also rot-proof, and resistant to bacteria, fungi and small organisms.

CDM 508 eco Floor is also independently tested as an effective barrier to radon ground gases, and is used within our patented combined ground gas and waterproofing system, [Newton PAC-500](#).



KEY BENEFITS

- Third-party tested for long-term compressive load to ISO 25619-1 (2% compression over 50-years)
- Speed of installation
- Provides vapour control used with humidity control systems, capable of delivering an environment to all levels within a Grade 3 environment to BS 8102:2022
- Independently certified as a barrier to hydrocarbon gases and radon
- Resistant to rot, chemically aggressive groundwater, acids and alkalines, efflorescing salts and hydrocarbon contamination

TYPICAL APPLICATIONS

Floor membrane as part of the Newton CDM Type C waterproofing system.

SUITABLE SUBSTRATE - FLOOR

- Concrete raft or slab
- Newton [Fibran XPS 500-C](#) closed cell extruded polystyrene insulation (see section on page 5 for further information)

TRAINING AND COMPETENCY OF THE USER

Newton CDM 508 eco Floor is part of the Newton CDM System, our Type C, internal waterproofing system.

Newton CDM 508 eco Floor should be installed by those with experience of structural waterproofing.

Newton recommends that the CDM System is installed by [Newton Specialist Contractors](#) who are trained by Newton in the correct design and installation of the system. This is also a requirement of the BBA Certificate.

COLOUR

Black.

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TECHNICAL DATA			
Features	Result	Units	Test Standard
Material	HDPE		
Colour	Black		
Density	800	g/m ²	
Width	2.5	m	
Length	20	m	
Area	50	m ²	
Height	8.0	mm	
Membrane thickness	0.8	mm	
Stud depth	7.2	mm	
Vicat softening temperature	126	°C	
Packaged weight	40	kg	
Service temperature	-40 to +80	°C	
Installed Performance	Result	Units	Test Standard
Compressive strength - Temporary	520	kPa	EN 25619-2
Compressive strength - Permanent	21	kPa	EN 25619-1
Compressive strength - Permanent - with studs filled with C16 screed	800	kPa	EN 25619-1
Thermal conductivity	0.461	W/mK	EN 12667
Water vapour resistance – S _d value	>604	m	BS EN 1931
Water vapour resistance – μ value	>1208000	μ	Calculated from S _d value
Water vapour diffusion resistance	>3020	MNs/g	Calculated from S _d value
Resistance to fire - Euroclass	Not tested - F*		BS EN 13501-1
Chemical resistance – Excellent	100	%	EN 14030
Oxidation resistance – Excellent	100	%	EN ISO 13438
Radon gas resistance - Membrane	4.4 x 10 ⁻¹²	m ² /s	K124/02/95
Radon gas resistance - Joints	1.6 x 10 ⁻¹²	m ² /s	K124/02/95

The above data, even if carried out according to regulated tests are indicative and they may change when specific site conditions vary.

* Newton Waterproofing Systems can provide fire-resistant membranes that are tested and classified to a fire rating of B-s2.d0. Get in touch directly for more information.

LIFE EXPECTANCY

When specified, installed and protected in accordance with the Data Sheet and Installation Manual, and fully and permanently isolated from UV light, physical damage or wearing, and only to those substrates confirmed within, Newton CDM 508 eco Floor has a service life that is equal to the life of the structure.

PACKAGING

Newton CDM 508 eco Floor - Code M2 - 2.5m x 20m.

SPECIFICATION

Newton Waterproofing Systems work in partnership with RIBA NBS who publish our products on [NBS Source](#). The platform integrates seamlessly into project workflows, providing all product data from Newton's NBS BIM Objects, NBS Plus Clauses and RIBA Product Selector into one single source of product information.

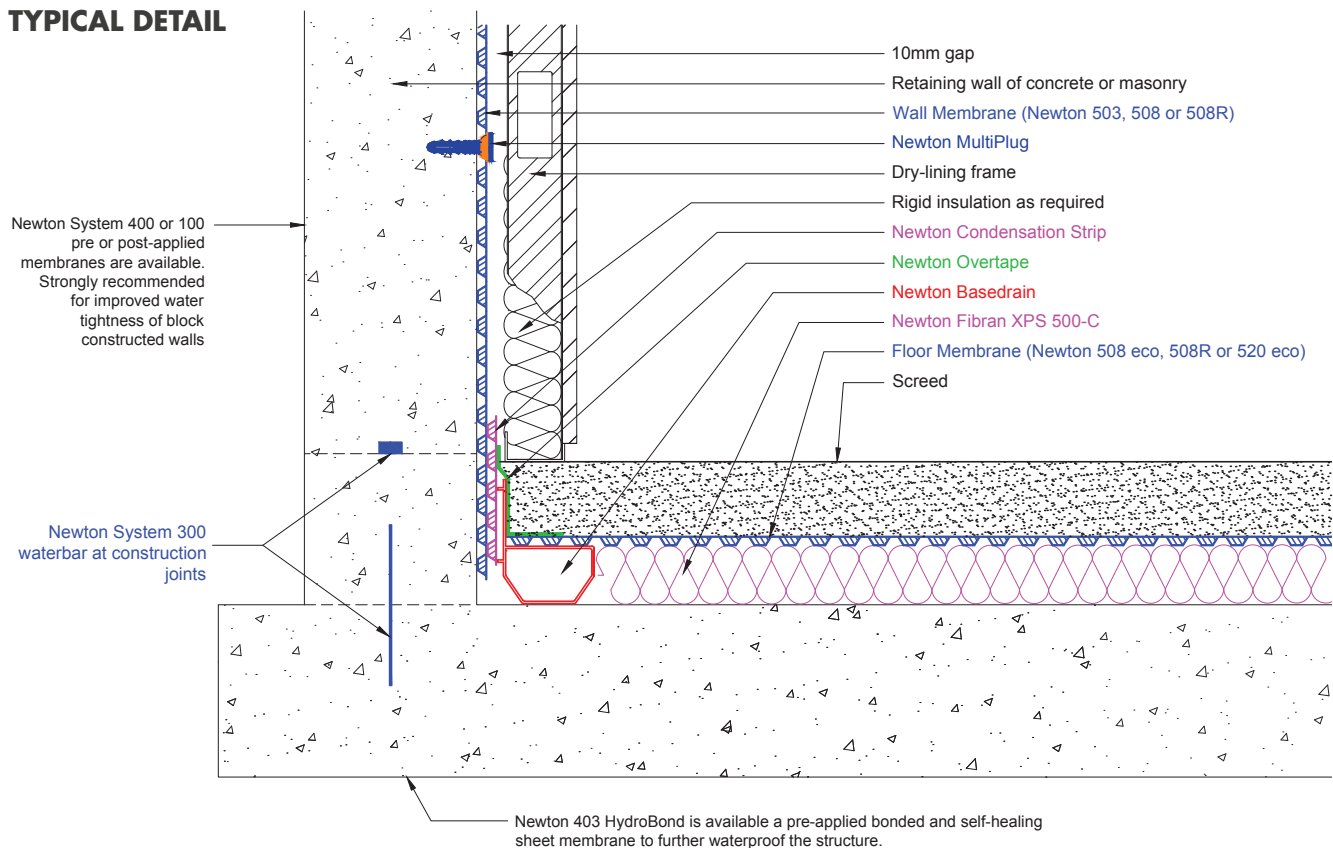
NBS Source also hosts a large selection of Newton [case studies](#), as well as product [literature and certifications](#).

A wide range of drawings are available [on our website](#).

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TYPICAL DETAIL



PRODUCT WARRANTY

Newton CDM 508 eco Floor is supplied with a product warranty of 30 years, and has a life expectancy of at least 100 years (DIN 9001:2000). Please note that this is not a guarantee. The waterproofing guarantee is provided by the specialist waterproofing contractor.

INSTALLATION INSTRUCTIONS

Please refer to the [Newton CDM Installation Manual](#).

APPLICATION ABOVE INSULATION SPACER

Where the membrane is installed above a spacer of 50 mm of insulation, please ensure the following:

Newton Fibran XPS 500-C has been tested for use as the Basedrain spacer below the floor membrane. Loading data can be found on page 2 of the Newton [Fibran XPS 500-C](#) data sheet.

Where designed loading is too high, please contact Newton Waterproofing for further advice.

STORAGE

Store upright in dry conditions at temperatures between 5°C and 25°C. Do not expose to freezing conditions or direct sunlight.

PROTECTION OF THE MEMBRANE

The membrane should always be protected by suitable surface finishes.

Protection methods to floors include:

- Screed
- T&G Chipboard
- Timber floor supported by a fixed lattice of timber supports
- Insulation with screed or T&G chipboard above
- Under floor heating tray with screed above

NOTE: Newton CDM 508 eco Floor is Fire Rated to Euroclass F, the same as plastic based insulation. As such, the membrane must always be protected from fire by surface finishes, as would be the case with insulation.

Newton Waterproofing Systems can also provide fire-resistant membranes that are tested and classified to a fire rating of B-s2.d0. Get in touch with the Newton Technical Team directly for more information.

ANCILLARY PRODUCTS

Please refer to the [Newton CDM Installation Manual](#).

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LIMITATIONS

- When installing the Newton CDM System to floors, all concrete rafts and slabs should first be flood tested to ensure that they are flat and level. Deviation from the slab height at the point where the drainage channel is adjacent to the sump chamber (the datum point) may not be more than -5mm at any point between the datum and the furthest point on the floor to which the waterproofing system extends. Equally, deviation from the datum may be up to +15mm as long as this is at the furthest point from the datum. Any irregularities should be made good by planing, grinding or by the use of a suitable levelling compound such as [Ardex Arditec NA](#) (available from Newton Waterproofing Systems)

- Newton CDM 508 eco Floor is not a standalone product and has no capability to withstand water pressure. It must be used as part of a Type C cavity drain waterproofing system that safely removes water from the building
- The Newton CDM System, of which Newton CDM 508 eco Floor is a constituent part, is a professional fit waterproofing system that should be designed and installed by those trained and registered by Newton Waterproofing and registered within our NSBC scheme

HEALTH & SAFETY

Use product only as stated within the Application Guides. Read the Newton CDM System Installation Manual before use.

		M2 BS EN 13967:2012 + A1:2017 Waterproofing sheet for damp proof sheets, type V	
Essential characteristics to BS EN 13967:2012 + A1:2017	Test Standard	Result	Unit of measure
Water tightness, 60 kPa; 24h	EN 1928	Waterproof	
Compressive strength	EN ISO 25619-2	520	kN/m ²
Tear resistance	EN 12310-1	MD - npd CMD - npd	
Tensile strength	EN ISO 10319: 1996	MD - npd CMD - npd	kN/m
Elongation	EN ISO 10319: 1996	MD - npd CMD - npd	%
Compressive creep (resistance to static load)	EN 13967 Annex B	npd	
Impact resistance	EN 12691	npd	
Durability against ageing	EN 1296 / EN 1928	npd	
Durability against chemicals	EN 1926 / EN 1928	npd	
Fire resistance	EN 13501-1	F	
Hazardous substance	Less than limited by national regulations.		National regulations valid in EU member states.

Newton Waterproofing Systems and Newton Systems reserve the right to update product literature at any time. Please always refer to our [website](#) for the latest versions.