

CDM 503 Mesh

3mm Meshed Cavity Drain Membrane

Revision: 5.1 - 29th November 2022
Code: M11

INTRODUCTION

Newton CDM 503 Mesh is a high quality meshed cavity drain waterproofing membrane for use within the [Newton CDM System](#), our internally applied waterproofing system that also includes drainage and pumping systems. The strong polyethylene mesh is thermally welded to the face of the membrane during manufacturing to provide a key for plasters and renders.

CDM 503 Mesh is suitable for the waterproofing of earth retained walls and vaulted soffits and 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 Agrément Certificate 22/6357.

CDM 503 Mesh is inert and non-polluting to drinking water, highly 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.



KEY BENEFITS

- Does not require extensive and damaging preparation to the wall surface
- Speed of installation
- Capable of delivering an environment to all levels within a Grade 3 environment to BS 8102:2022
- 3mm deep for applications where space is tight
- Meshed surface for application of plasters/renders

TYPICAL APPLICATIONS

Walls, vaults, and tunnels as part of the Newton CDM System for below ground waterproofing applications.

SUITABLE SUBSTRATE - WALLS

- Concrete
- Brick
- Concrete block
- ICF - With special longer fixing plugs

SUITABLE SUBSTRATE - SOFFITS

- Concrete - To fall
- Brick - Arched or vaulted

TRAINING AND COMPETENCY OF THE USER

Newton CDM 503 Mesh is a constituent part of the CDM System, our Type C, internal waterproofing system.

Newton CDM 503 Mesh 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.

PRODUCT WARRANTY

Newton CDM 503 Mesh 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.

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TECHNICAL DATA

Features	Result	Units	Test Standard
Material	HDPE		
Colour	White		
Density	505	g/m ²	
Width	2.0	m	
Length	20	m	
Area	40	m ²	
Membrane thickness	0.6	mm	EN 149-2
Stud height	3.0	mm	
Working temperature	-50 to +80	°C	
Softening temperature	126	°C	
Packaged weight	20.2	kg	
Installed Performance	Result	Units	Test Standard
Water tightness at 60 kPa; 24h	Pass		EN 1928
Tensile strength MD	416	N	BS 12311-2
Tensile strength CD	488	N	BS 12311-2
Resistance to static loading	> 20	Kg	BS 12730
Compressive strength 1	250	kN	BS EN ISO 25619-2
Fire resistance	F*		BS EN 13501-1
Type of application	Type V		N/A
Life expectancy	Lifetime of structure		

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 503 Mesh has a service life that is equal to the design life of the structure.

SPECIALIST TOOLS REQUIRED

- High quality SDS drill and drill bits
- Heat gun
- Rotating laser level is recommended but not required

INSTALLATION INSTRUCTIONS

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

PACKAGING

Code M11 - 2.0m 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 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](#).

STORAGE

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

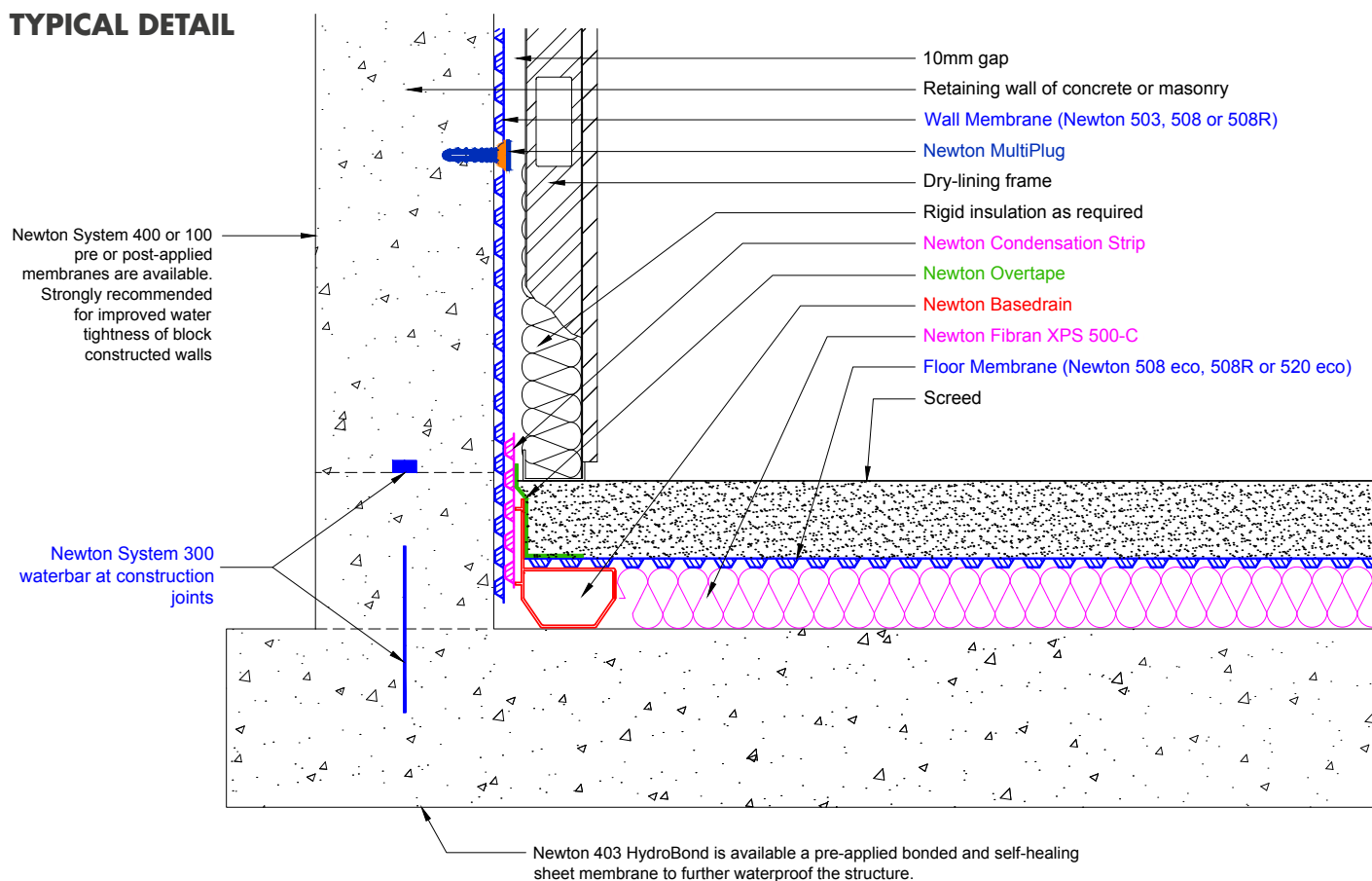
ANCILLARY PRODUCTS

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

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TYPICAL DETAIL



PROTECTION OF THE MEMBRANE

The membrane should always be protected by suitable surface finishes.

Protection methods to walls and vaulted soffits include:

- Suitable plasters or renders
- Floor supported dry-lining frame and plasterboard
- Timber battens fixed into Newton CDM MultiPlugs as a support for plasterboard or wooden sheeting

NOTE: Newton CDM 503 Mesh 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.

HEALTH & SAFETY

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

COLOUR

Translucent white.

LIMITATIONS

- Not suitable for flat soffits.
- 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 K301 (available from Newton Waterproofing Systems).
- Newton CDM 503 Mesh is not a standalone product and has no capability to withstand water pressure. Must be used as part of a Type C cavity drain system that safely removes water from the building
- The Newton CDM System, of which CDM 503 Mesh is a constituent part, is a professional fit system that should be designed and installed by those trained and registered by Newton Waterproofing and registered within our NSBC scheme

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		 Newton Waterproofing Systems Newton House 17-20 Sovereign Way Tonbridge Kent TN9 1RH		M11 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		Pass	
Resistance to tearing		EN 12310-1		MD - npd CMD - npd	
Elongation (5%)		EN 12311-2		MD - npd CMD - npd	
Compressive creep (resistance to static load)		EN 13967 Annex B		npd	
Impact resistance		EN 12691-2 Method A		npd	
Durability against ageing		EN 1296 / EN 1928		npd	
Durability against chemicals		EN 1926 / EN 1928		npd	
Fire resistance		EN 13501-1:2007 + A1:2009		E	
Joint tensile shear resistance		EN 12317-2			
Compressive strength		BS EN ISO 25619-2		250	kN

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Joint tensile shear resistance		EN 12317-2	npd	
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Newton Waterproofing Systems reserve the right to update product literature at any time. Please always refer to our [website](https://www.newtonwaterproofing.co.uk) for the latest versions.