CDM 508 Mesh

8mm Meshed Cavity Drain Membrane

Revision: 12 - 17 November 2026
Code: M3

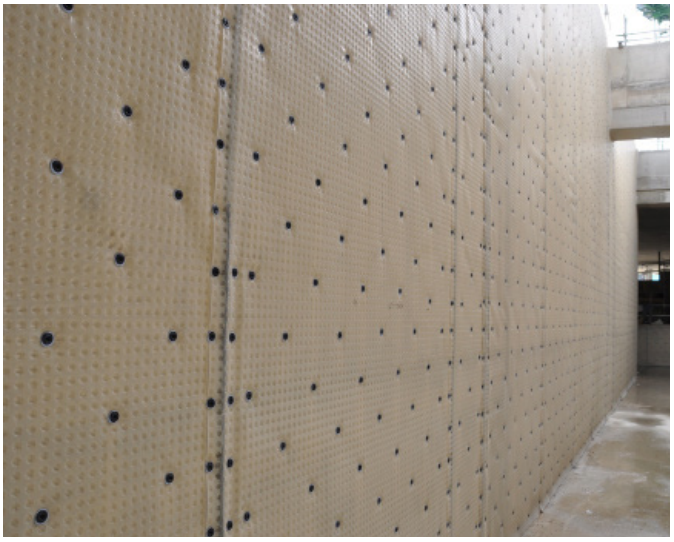
INTRODUCTION

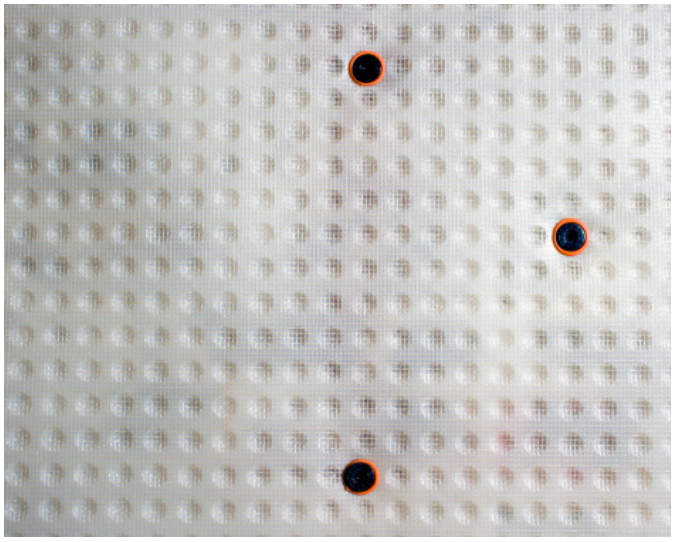
Newton CDM 508 Mesh is a high quality meshed cavity drain waterproofing membrane for use within the Newton CDM System, our internally applied waterproofing system that also includes drainage and pumping systems. The strong polyethylene mesh is thermally welded to the face of the membrane during manufacturing to provide a key for plasters and renders.

CDM 508 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.

BBA APPROVAL INSPECTION TESTING CERTIFICATION
CERTIFICATE 22/6357

CDM 508 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
- 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 508 Mesh is a constituent part of the CDM System, our Type C, internal waterproofing system.

Newton CDM 508 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 508 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.

COLOUR

Translucent white.

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Monday to Friday 7:00am - 5:00pm

CDM 508 Mesh

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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	7.0	mm	
Working temperature	-50 to +80	ºC	
Softening temperature	126	ºC	
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	180	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 508 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 M3 - 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.

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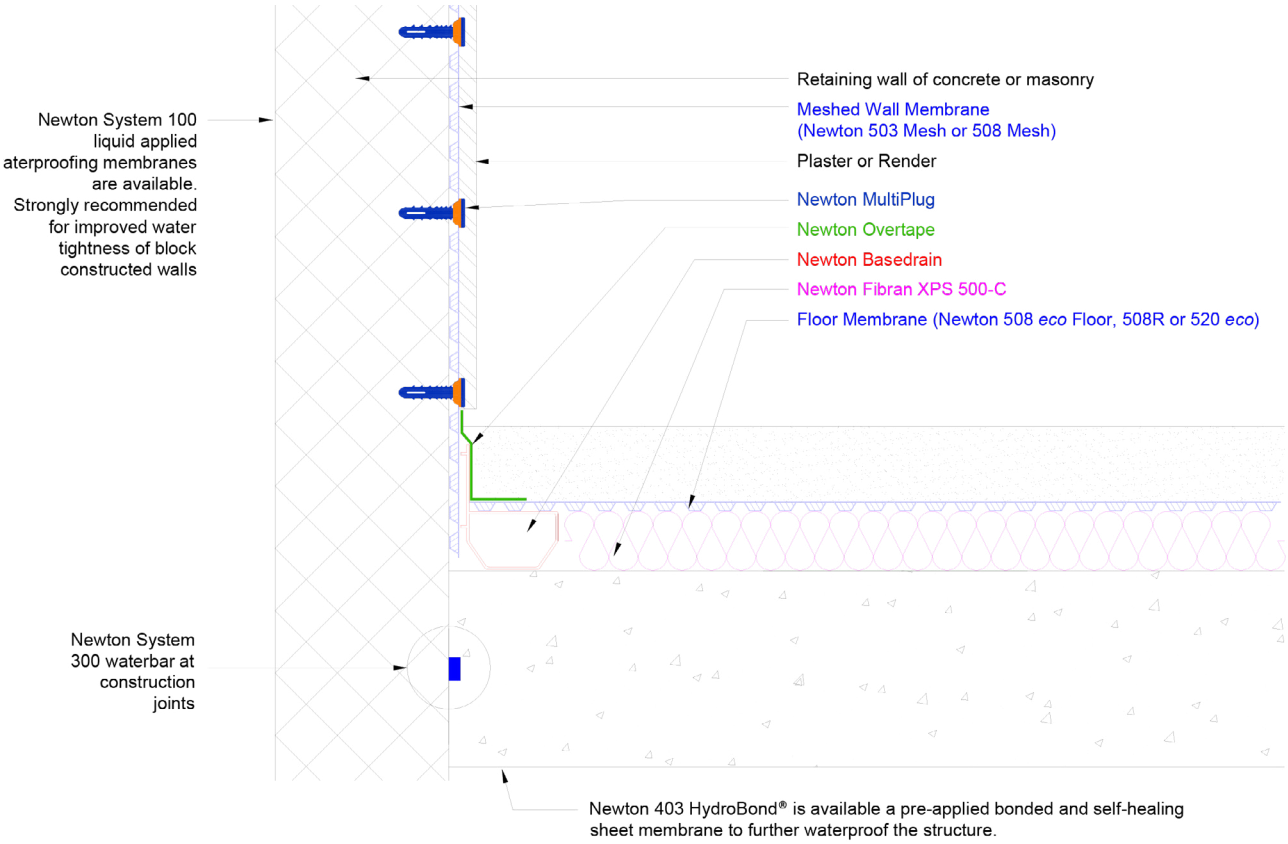
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TYPICAL DETAIL



FINISH (GENERAL)

- CDM 508 Mesh is suitable for wall finishes including plaster, render, hydraulic lime or plasterboard bonded to the membrane with a propriety adhesive compound
- Whilst any cement rendering is prone to cracking, careful application can reduce or avoid this
- Problems occur when the scratch coat has not been allowed to fully cure prior to the float coat being applied, but the most common problem we see is where the render has not been allowed to fully cure due to accelerated drying. It is extremely important that the render is slowly cured for a period of 7-10 days, longer if possible. The render gets its strength from the chemical processes that take place between the cement content and the added water. The cement needs the correct amount of water to be available to it during the whole of the curing period. If the render dries too quickly due to exposure to sunlight, wind or even dehumidification, the cement will not be able to react with water, producing a weak render that will be prone to cracking
- The render should be dampened regularly during the curing process
- Hairline cracking can be made good with fine fillers, or alternatively a high-build masonry paint can be applied

DO NOT APPLY DECORATIONS UNTIL PLASTERS OR RENDERS ARE THOROUGHLY DRY.

PLASTERING (INTERNAL)

- The recommended plaster for CDM 508 Mesh is Tarmac Whitewall One Coat. **Please note that we do not recommend that this product is used in one single coat to Newton Mesh membranes**
- The application of the plaster should be in two coats: 6mm scratch coat, 6mm second or float coat
- If a finish coat is required this should be of 3mm
- Tarmac Whitewall should be applied in accordance with good plastering practice as described in BS 8481:2006, BS EN 13914-2:2005
- Always allow 24 hours drying time between coats of plaster. For a high-impact resistant finish, use Tarmac Backing Plaster and Tarmac High Impact Finishing Plaster
- **NOTE: Tarmac Backing Plaster and Tarmac High Impact Finishing Plaster are not suitable for areas of high humidity and wet areas such as swimming pool surrounds**

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RENDERING (INTERNAL)

- Render with a mix of sand, cement and lime should be applied in two coats using the procedures defined within BS EN 13914-1:2005 to a total thickness of 14mm
- A 3mm skim coat of finishing plaster can be added once the render is fully cured
- The scratch coat should be a mix of 1 part lime: 1 part cement: 5 parts clean, well-graded sharp sand, and the second or float coat should be a mix of 1 part lime: 1 part cement: 6 parts clean, well-graded sharp sand. The scratch coat should be 7mm and the second or float coat should be 7mm
- To lessen incidents of cracking, it is best to mix the lime and sand a day or more before use. Cement can then be added at the time of rendering
- The work should be of two coats of render and if required, a third coat of finishing plaster. The purpose of the 7mm scratch coat is to stiffen up the membrane and to provide rough and absorbent backing for subsequent coats
- Work this scratch coat well into the mesh
- Each 7mm coat of render should be allowed to dry for a period of not less than seven, preferably ten days, longer if possible. Cracking may occur if shorter time is allowed between coats
- It is important that the render coats are allowed to cure correctly over the 7 to 10 day period with the render dampened as required. If the scratch coat has not fully cured, slumping of the render can occur
- Before applying the second or float coat, carefully drill or scratch out a small section into an area behind the mesh, within the membrane stud, to confirm that it is fully cured. The surface will cure quite quickly but the area behind the mesh must be fully cured as well
- In warm periods the render should be protected from excessive drying out by covering with damp hessian sheets with plastic sheeting over
- Dampen down the scratch coat before application of the float coat
- A smooth finish is not recommended
- Expansion joints should be trowelled in through the render to the membrane. These joints must be filled with a suitable flexible polymer-based sealant
- Expanded metal angle beads and stop beads can be fixed where appropriate using dabs of the same material mixed as for the scratch coat

HYDRAULIC LIME (INTERNAL)

First Coat

Using a ratio of 1 part Lime to 2 1/2 - 3 parts sharp washed sand with evenly distributed hair throughout the mortar and working to a layer of 10mm thick, push the plaster into and across the pre-wet laths at a 45 degree angle to the lathes. The plaster should be correctly cured until hard

Second Coat

The second coat also known as the intermediate or float coat will be applied similar to the first coat only without any hair being added to the mortar. You must ensure you wet down the first coat with a fine mist before spreading a 7mm coat, before scratching up and leaving in preparation of the finish coat.

Finish Coat

Coat For the final top coat a fine mix of 1 part lime putty to 2 parts well graded super fine sand. Remembering to wet down the surface before application with a fine mist spray. Allow time for the water to absorb into the plaster then apply a coat of approximately 5mm, then rule off and leave for a couple of hours. When ready, rub up the finish coat using a plastic or wooden trowel to bring back the fat until the required finish has been reached in the case of any light crazing this can be rubbed up and trowelled out.

PLASTERBOARD ON DABS

Plasterboard panels can be fixed by the dot and dab method, giving a dry surface ready for immediate decoration.

'Dabs' should be applied to the heads of the fixing plugs, board edges and membrane to cover 50% of the CDM 508 Mesh.

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.

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

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- 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 508 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.

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 508 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 508 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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CE 2 2	JN NEWTON WATERPROOFING	Newton Waterproofing Systems Newton House 17-20 Sovereign Way Tonbridge Kent TN9 1RH	M3 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	F	
Joint tensile shear resistance	EN 12317-2		
Compressive strength	BS EN ISO 25619-2	180	kN

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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	npd	
Compressive strength	BS EN ISO 25619-2	180	kN

Newton Waterproofing Systems reserve the right to update product literature at any time. Please always refer to our website for the latest versions.