

System 800

NEWTON 803

Non-Meshed Damp Proofing Membrane

Rev 8.0 - 16 August 2016

PRODUCT CODE - M19 & M20

PRODUCT OVERVIEW

Newton 803 is a high quality damp proofing membrane for use above the ground as an alternative to Newton 803 Newtonite and 805 Newlath where a meshed surface is not required as a surface for direct plastering or rendering, typically where the wall finish to the damp proof membrane is timber battens, a dry-lining frame or block wall. Newton 803 is guaranteed against deterioration for 30 years, has a life expectancy of at least 50 years (DIN 9001:2000) and inert and is highly resistant to water, alkalies, saline solutions and organic acids, and it is not affected by minerals and is also resistant to bacteria, fungi and other small organisms.

Newton 803 is 0.65mm thick and has a pattern of raised 3mm studs and is light, clean and easy to handle. It can be cut with a sharp knife, scissors or shears. The studs face the wall and create air channels that allow for vapour equalisation to take place between the membrane and the wall.

KEY BENEFITS

- Isolation of wall finish from the damp wall
- Does not require extensive and damaging preparation to the wall surface
- Speed of installation
- Resistant to efflorescing salts and hydrocarbon contamination
- Rot-proof
- Shallow stud profile for where space is at a premium

TYPICAL APPLICATIONS

- As a damp proof membrane to isolate the wall finish from the damp wall where a meshed surface for plaster or render is not required

SUITABLE SUBSTRATE - WALLS

- Concrete
- Brick
- Concrete block

SPECIALIST TOOLS REQUIRED

- High quality SDS drill and drill bits
- A rotating laser level is recommended but not required

TRAINING AND COMPETENCY OF THE USER

The diagnosis of damp and the specification of correct use of Newton 803 will, in many cases, require the intervention of a specialist in the field of damp remediation.

LIFE EXPECTANCY

When specified, installed and protected in accordance with the Data Sheet and Installation Manual, and fully and permanently isolated from UV light and physical damage or wearing, and only to those substrates confirmed within, Newton 803 has a service life that can be equal to the design life of the structure.

PRODUCT WARRANTY

Newton 803 and 803 Mesh are supplied with a product warranty of 30 years, and have a life expectancy of at least 50 years (DIN 9001:2000).



SPECIFICATION

Newton Waterproofing Systems are in partnership with RIBA NBS who publish details of our products and systems within their specification clause library to allow Architects ease of specification through their NBS Plus interface. NBS clauses can be accessed via the technical resources area of the web site where a live NBS Feed is available at [NBS Plus Live Feed](#)

Our website has drawings available for download in [Technical Drawings](#). A selection are also available via [FastrackCAD](#), as well as a range of BIM objects on the [NBS National BIM Library](#)

BBA CERTIFICATION

Newton 803 is the same membrane as Newton 503 but does not hold an agrément certificate. If an agrément certificate is required, please use Newton 503.

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TECHNICAL DATA

Features	Result	Units
Material	HDPE	
Colour	White/Translucent	
Density	500	g/m ²
Width	1.0 / 2.0	m
Length	10 / 20	m
Area	10 / 40	m ²
Membrane thickness	0.65	mm
Stud depth	2.4	mm
Height	3.63	mm
Vicat softening temperature	126	°C
Packaged weight	23.0	kg
Service temperature	-40 to +80	°C

Installed Performance	Result	Units	Test Method
Compressive strength – Temporary loading	>320	kPa	EN ISO 25619-2
Compressive strength – Permanent loading	100	kPa	EN ISO 25619-1
Thermal conductivity	0.461	W/mK	EN 12667
Water vapour diffusion resistance – Sd value	>604	m	BS EN 1931
Water vapour diffusion resistance – μ value	>1208000	μ	Calculated from Sd value
Water vapour diffusion resistance	>3020	MNs/g	Calculated from Sd value
Resistance to fire	Euroclass E		BS EN 13501-1
Chemical resistance – Excellent	100	%	EN14030
Oxidation resistance – Excellent	100	%	EN ISO 13438

COLOUR

Translucent white.

PROTECTION OF THE MEMBRANE

The membrane should always be protected by suitable surface finishes.

Protection methods include:

- Timber battens fixed into Newton MultiPlugs as a support for plasterboard or wooden sheeting
- Block walls
- Timber stud walls
- Metal self supporting frame
- Metal wall supported frame

NOTE: Newton 803 is Fire Rated to Euroclass E, 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.

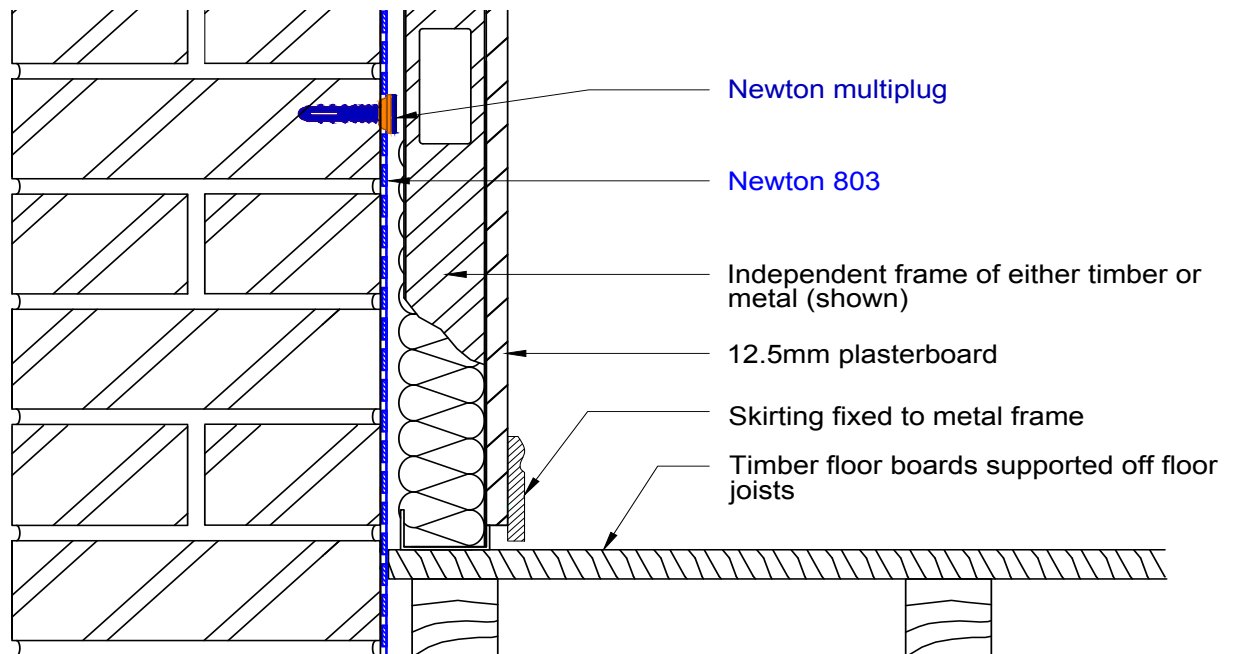
SURFACE PREPARATION

- Clean the substrate to remove all loose debris and organic matter. Plaster should be removed as it can soften over time, which will weaken the fix of the membrane to the wall. If the wall render is in good condition, it does not have to be removed and the 803 can be fitted directly over. Loose or crumbling render should be removed
- If evidence of bacterial growth can be seen, use a fungicidal product prior to the fitting of the membrane
- If any evidence of wet rot or dry rot is seen, have it dealt with by a qualified remedial specialist
- If a new slab is to be laid as part of the works, it is preferable to fit Newton 803 prior to the laying of the floor slab with the floor DPM extending upwards in front of the Newton 803 ready for the concrete placement

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TYPICAL DETAIL



FIXING TO THE WALL

- Cut the membrane to size. Ideally, Newton 803 should be continued up into ceiling voids and down past the slab to the oversite. If this is not possible, cut the membrane so that it finishes tightly to the soffit and floor finish. A gap is not required at the soffit or floor, indeed the system works more efficiently when the system is not ventilated as this impedes the natural vapour drive from inside the property to the outside that still continues through the Newton 803
- Newton 803 is fitted to the wall with the studs facing the wall and the flat surface facing inwards towards the applicator. Fix the membrane to the wall with the [Newton MultiPlug](#) to all substrates except to slightly friable mortar substrate, when the [Newton 800 Cob Plug](#) should be used
- 803 can be fitted horizontally or vertically. Fit the membrane as level as possible - best results are achieved when a long builders level or a rotating laser level is used
- Using a 10mm drill bit, drill through the membrane into the wall to a depth of at least 60mm
- Fix only as many MultiPlug fixings as are required to fix the membrane neatly to the wall
- If fixings are required for fixing of timber battens, brackets for Gypliner type dry-lining frame or wall ties, add further plugs to the correct centres required for the wall lining
- Hammer the plugs home using a wide headed hammer such as a lump hammer or mallet
- Fit Newton 803 to return walls to isolate wall finishes from dampness transmitting from the main wall being treated
- Newton 803 can be taken into reveals

CUTTING TO SIZE

- Newton 803 can be cut with a sharp utility knife, scissors or shears
- Decide whether the membrane is to be fitted horizontally or vertically

MEMBRANE JOINTING

- Joints may be made horizontally or vertically
- Fit the edge of the next length of membrane adjacent to the previous sheet with a butt-joint. Overtape the butt-joint with [Newton Overtape](#)
- Newton 803 can be taken round corners. Try to fit the membrane square with neat creases to the internal and external corners. Where the membrane starts to be misshapen due to the contours of the wall, cut the membrane and start again with a new butt-joint secured with Newton Overtape
- In cold and damp conditions a heat gun should be used to gently evaporate surface moisture prior to the application of the Newton Overtape

USING THE MULTIPLUG FOR FIXING

The Newton MultiPlug has a hollow core that is designed to receive 5mm self-tapping screws. Use the MultiPlug to secure timber battens or locating brackets from wall lining systems. Heavier items can be supported by screwing a piece of chipboard to the MultiPlugs at fairly close centres and then fixing the heavier item to the chipboard in a conventional way.

FIXING HEAVIER OBJECTS TO THE WALL

Heavier objects should be attached to the wall using resin anchors. Seal around the resin anchor with Newton Mastic.

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WALL TIES

The Newton MultiPlug is designed to accept a range of Newton Helifix Wall Ties. These helical ties are driven into the MultiPlug to the correct depth with a hand tool. Newton Helifix Wall Ties are available in lengths of 155mm, 170mm, 195mm, 220mm, 245mm, 270mm, 295mm and 325mm. The hand tool ensures that exactly 30mm of the wall tie is inserted into the MultiPlug, which should be considered when sizing the wall tie.

SEALING AROUND PROTRUSIONS

Where the membrane has to be cut around pipes or other protrusions, carefully cut the membrane around the protrusion and then seal around the protrusion with [Newton 801 Mastic Sealant](#)

PUNCTURING THE MEMBRANE

Repair punctures to the membrane with small patches of Newton Overtape.

PACKAGING

1.0m x 10m - Product code M19.

2.0m x 20m - Product code M20.

COVERAGE

M19: 10m²

M20: 40m²

LIMITATIONS

- Newton 803 is a damp proofing product for use to above ground (non earth-retaining) structures only. If the wall(s) to be treated have earth to the other side this product is not suitable and our [System 500](#) waterproofing products should be used instead
- Not UV stable - Ensure the membrane is not left in direct sunlight for more than 7 days
- Fixing should not take place above 30°C and below -5°C

STORAGE

Newton 803 should be stored with the rolls standing up on end and away from direct sunlight.

HEALTH & SAFETY

Use appropriate PPE for the environment the system is installed within. Use products only as stated within this Data Sheet and the MSDS and Application Guides