

# System 500

## NEWTON 508

### 8mm Cavity Drain Membrane

Rev 5.0 - 21 January 2015

PRODUCT CODE - M1, M2, M1R &amp; M2R

#### PRODUCT OVERVIEW

*Newton 508 is a high quality cavity drain waterproofing membrane suitable for use internally below the ground to retaining walls, vaulted soffits and floors. Newton 508 is the most commonly used membrane within our Newton System 500 waterproofing system that includes*

*Newton drainage and pumping systems. Newton 508 is guaranteed against deterioration for 30 years, and has a life expectancy of at least 50 years (DIN 9001:2000) and is supported by BBA Certification Number 94/3010.*

*Newton 508 is inert with high compressive loading stability. It is highly resistant to water, alkalis, saline solutions and organic acids, and it is not effected by minerals and hydro-carbons. It is also impervious to root penetration, is rot-proof and resistant to bacteria, fungi and other small organisms.*

*Newton 508R is also independently tested as being an effective barrier to methane and radon ground gasses and is the membrane used within our patented combined ground gas and waterproofing system, Newton PAC.*

*Newton 508 is completely inert and is non-polluting to drinking water.*

#### BENEFITS

- Does not require extensive and damaging preparation to the wall surface
- Speed of installation
- Provides vapour control and when used with humidity control systems is capable of delivering an environment to all levels within a Grade 3 environment to BS8102:2009
- 508R is independently certified as a barrier to hydro-carbon gasses, radon and methane
- Resistant to chemically aggressive groundwater, efflorescing salts and hydrocarbon contamination
- Rot-proof and resistant to root penetration

#### TYPICAL APPLICATIONS

Wall and floor membrane as part of Newton System 500

#### SUITABLE SUBSTRATE - WALLS

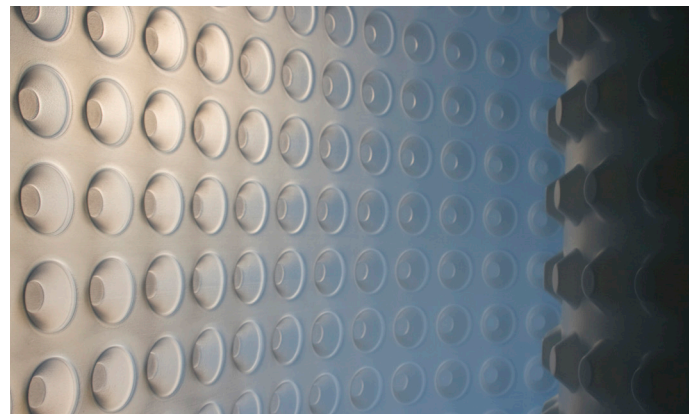
- Concrete
- Brick
- Concrete block
- ICF - With special longer fixing plugs

#### SUITABLE SUBSTRATE - SOFFITS

- Concrete - to fall
- Brick - Arched or vaulted

#### SUITABLE SUBSTRATE - FLOOR

- Concrete raft or slab
- Flooring grade closed cell extruded polystyrene insulation (see section on page 2 for further information)



#### COLOUR

Translucent white

#### PACKAGING

Roll of 2.40m x 20.0m - Codes M1 & M1R

Roll of 2.07m x 20.0m - Codes M2 & M2R

#### SPECIALIST TOOLS REQUIRED

Please refer to Installation Manual

#### 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 here [Technical Drawings](#) and a selection are also available via [FastrackCad](#)

# NEWTON 508

## 8mm Cavity Drain Membrane

### APPLICATION ABOVE INSULATION SPACER

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

#### Type of insulation

In theory any insulation that is recommended for use within wet conditions is suitable. The following insulations have been confirmed as being suitable by the manufacturer for use as the Basedrain spacer below the floor membrane:

- Dow Floormate
- Kingspan Styrozone
- Selecta Yellowfoam

#### Loading of the insulation

The contact area of the studded membrane with the insulation is only 12.5% of the upper surface area. When calculating loading through the membrane to the insulation be aware that the load to the floor must be multiplied by 8 to give the representative point load to the insulation.

For example:

Floor load is 10kN/m<sup>2</sup>. Multiply by 8 = 80kN/m<sup>2</sup> to give point load above the insulation. Use only the *Compressive creep (design load) max 2% deflection after 50 years* figure from the insulation data sheet. If the point load is too high, please contact John Newton 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.

### ANCILLARY PRODUCTS

Please refer to Newton System 500 Installation Manual.

### LIMITATIONS

- Has no capability to withstand water pressure. Must be used as part of a Type C cavity drain waterproofing scheme that safely removes water from the building

### PRODUCT WARRANTY

Newton 508 is supplied with a product warranty of 30 years, and has a life expectancy of at least 50 years (DIN 9001:2000). Please note that this is not a guarantee. The waterproofing guarantee is provided by the specialist waterproofing contractor.

### HEALTH & SAFETY

Use product only as stated within the Application Guides. Read the MSDS and System 500 Installation Manual before use.

### NEWTON 508

Width (m)	2.07 / 2.40
Length (m)	20.00 / 20.00
Area (m <sup>2</sup> )	40.00 / 48.00
Weight (kg)	30.00 / 35.00
Colour	White
Raw material	HDPE
Thickness (mm)	0.70
Stud height (mm)	8.00
Service temperature	-40 °C to 80 °C
Compressive strength	130kN/m <sup>2</sup> / * 350kN/m <sup>2</sup>
Fire resistance (DIN 4102)	B2
Water vapour transmission	0.046g/m <sup>2</sup> x hr x mmHg
Thermal resistance	0.078m <sup>2</sup> K/W
Thermal conductivity	0.461 W/mK
Drainage capacity	4.61 litres/sec/m <sup>2</sup>
Vicat softening temperature	126 °C
Chemical resistance	Very good
Radon transmittance	$P = 3.9 \cdot 10^{-9}$ m/s
Radon permeability	$k = 2.6 \cdot 10^{-12}$ m <sup>2</sup> /s

\* Filled with non-compressible material such as screed or sand

*All technical data stated herein is based on tests carried out under laboratory conditions.*

### CAD TRAINING AND COMPETENCY OF THE USER

Newton 508 is a constituent part of Newton System 500. Our recommendation is that the system is installed by registered installers who are trained and certified by John Newton within our NSBC scheme.

### INSTALLATION INSTRUCTIONS

Please refer to the System 500 Installation Manual.

[Installation Manual - Newton System 500](#)