

## DATA SHEET

# NEWTON NUSEAL-LM

## Damp Proofing and Gas Control Liquid Membrane

Rev 2.1 - 8 January 2015 - Formally Newton 902

PRODUCT CODE - PS902

### INTRODUCTION

Newton NuSeal-LM is a single component, high performance, elastomeric liquid rubber membrane specifically designed to provide a radon, gas and vapour barrier to vertical and horizontal surfaces. It is a water based compound, formulated on a styrene-butadiene copolymer.

NuSeal-LM can be used as the primary gas and vapour barrier to new and existing walls and floors and can be used below the insulation as the vapour control layer within a warm roof specification.

NuSeal-LM can be easily applied to a large variety of different surfaces such as concrete, mortar, brick, Insulated Concrete Formwork (ICF), ceramics, steel, zinc and aluminium to provide a continuous membrane.



### KEY BENEFITS

- A 0.7mm thick (dry film) coating provides an effective gas and vapour barrier when applied to most clay or cementitious based construction materials.
- Effective radon barrier - independent certification.
- Excellent adhesion - bonds to porous and non-porous substrates.
- Flexible - Resistant to movements and fissures in substrates.
- Easily applied with a brush, roller or airless spray.
- Non-toxic.
- Will withstand temporary light trafficking.
- Cannot be punctured as fully bonded.
- Easily repaired by locally over-coating.
- Can be painted, plastered or screeded over.
- Rapid drying. In good conditions, two coats can be applied in the same day.
- Easily applied to damp and "green" substrates.
- Good chemical resistance to gasoline, sodium hydroxide, calcium chloride, de-icing salts and effluent.

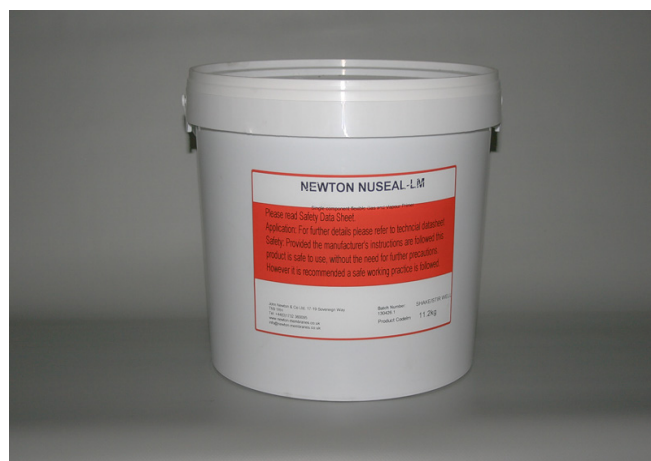
### NEWTON NUSEAL-LM

Colour	<b>Purple at application, cures Black</b>
Form	<b>Thixotropic Liquid</b>
Density	<b>1.20 - 1.30</b>
Toxicity	<b>Non-toxic</b>
Service Temperature	<b>+ 4°C</b>
Adhesion to concrete	<b>&gt; 1.1 N/mm<sup>2</sup></b>
Gas permeability	<b>8.527 x 10<sup>-10</sup> kg/m/s</b>
Elongation	<b>&gt;100%</b>

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

### TYPICAL APPLICATIONS

- Radon, Gas & Vapour barrier to walls and floors of concrete, masonry and brick substrates.
- Vapour control layer below insulation in warm roof builds.
- Vertical waterproofing membrane when used with Newton 410 Geodrain vertical drainage membrane.
- As a primer for concrete and steel prior to adhesion of Newton WaterSeal Tape, WaterSeal Rope and Overtape within Newton System 500 installations.
- Simple to apply DPM to existing damp floors.
- Window reveal DPM used in conjunction with Newton System 500. Broadcast builders sand onto the still tacky NuSeal-LM to provide a key for plasters and renders.



# NEWTON NUSEAL-LM

## Damp Proofing and Gas Control Liquid Membrane

### 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](#)

### TRAINING & COMPETENCY OF USER

NuSeal-LM is a quick and easy product to apply. The diagnosis of damp and the specification of correct use of NuSeal-LM will, in many cases, require the intervention of a specialist in the field of damp remediation, waterproofing or radon mitigation. John Newton recommend that Newton products used within waterproofing and radon installations should be installed only by contractors trained by John Newton in the correct use and specification of this and associated products and systems.

### TOOLS REQUIRED

- Power operated mixing device with suitably sized mixing paddle.
- Short pile roller or brush.

### SUITABLE SUBSTRATE

- Concrete or screed floors (not below external ground level).
- Walls of brick, block or concrete (not retained).
- Concrete or masonry retained walls (used externally in conjunction with Newton 410 Geodrain).
- ICF (Insulated concrete formwork) walls (if retained use externally in conjunction with Newton 410 Geodrain).
- Aluminium, Zinc, Steel or Ceramics in non-earth retained scenarios.



### CONSTRUCTION

The construction should conform with current Building Regulations, British Standards and relevant Codes of Practice.

### SURFACE PREPARATION

- The surface must be clean, and free from dust, laitance, oils, paints or other forms of contamination. Grit blasting or jet washing can be used to remove laitance and surface contamination. Adding mild detergents to the jet wash water will improve effectiveness.
- All structural cracks should be repaired and filled.
- Non-structural cracks > 0.5mm wide must be filled.
- Any holes or indentations should be filled with a suitable filler. Remove snots. Repoint brickwork flush to the surface.
- Steel surfaces should be shot blasted or grit blasted. All dust and grease shall be removed prior to coating application.
- Newly laid concrete should have a uniform, dense and smooth surface with float marks of no more than 3mm. A U5 power floated finish with no float marks is also suitable but not required. U1 (Abrupt irregularities permitted) or U2 (Tamp marks of up to 10mm) finishes are not suitable and should be avoided. NuSeal-LM can be applied to concrete or mortar within 24 hours of laying.

### MIXING

NuSeal-LM is supplied ready blended in pails. The product requires agitation using a slow speed paddle mixer. Mix carefully for 5 minutes before use. If containers are stored for more than 2 hours after opening, re-agitate. Do not add water.

### SURFACE APPLICATION

Pre-dampen (not wet) porous substrates before applying the first coat.

### APPLICATION - GENERAL

- NuSeal-LM can be used as a primer only, with one coat of 300g/m<sup>2</sup>, or as a gas, vapour and waterproofing membrane with two coats totalling 1kg/m<sup>2</sup>.
- The product can be applied by stiff brush, roller or airless spray with a minimum 17/1000 of an inch nozzle. The spray method is especially suitable for less accessible locations and uneven substrates.
- The total application thickness must not exceed 4mm if splitting or cracking is to be avoided.
- Ensure that the coating is even and use a circular action when spraying.
- If NuSeal-LM is to be used under a screed, lightly broadcast builders sand into the still tacky second coat to give a mechanical key.

# NEWTON NUSEAL-LM

## Damp Proofing and Gas Control Liquid Membrane

### APPLICATION - AS PRIMER

- Apply at rate of 300g/m<sup>2</sup> as a primer for subsequent coats of NuSeal-LM (see below) or as a stand-alone primer.
- Ensure that NuSeal-LM is fully cured before the bonding of butyl tapes. The product changes colour from purple to black when cured.

### APPLICATION - VERTICAL WATERPROOFING

- Apply the second coat, above the primer coat, at the rate of 700g/m<sup>2</sup>. For brush application apply at right angles to the primer coat. Use a circular action when spraying.
- Ground water must be removed by a water drainage membrane such as Newton 410 Geodrain.

### APPLICATION - GAS & VAPOUR BARRIER

Apply the second coat at the rate of 700g/m<sup>2</sup>. For brush application apply at right angles to the primer coat. Use a circular action when spraying.

### INTERFACE WITH OTHER PRODUCTS

- For expansion joints; please refer to expansion joint details provided by John Newton or speak with John Newton Technical Department.
- Other gas and vapour membranes must be exposed and lapped with NuSeal-LM where present.

### CURING

Curing is dependent on temperature and humidity and normally between 4 and 24 hours.

### LIMITATIONS

- Do not use where NuSeal-LM will be in extended contact with standing water. Use falls, drainage layers or waterproof top coats to ensure water is not in permanent contact with the product.
- Not suitable for medium or high foot trafficable areas or any vehicular trafficable areas. Use suitable protection such as screeds.
- Not suitable for use above bitumen or bitumen based products.

### COVERAGE

Primer - 0.3kg/m<sup>2</sup>.

Second coat as radon, gas or vapour barrier - 0.7kg/m<sup>2</sup>.

Second coat as vertical waterproofing membrane - 0.7kg m<sup>2</sup>.

### CLEANING

Thoroughly clean all tools and equipment with water.

### PACKAGING

NuSeal-LM is supplied in 5, 10 or 20kg pails.

### STORAGE

Store in dry conditions at temperatures between 10°C and 38°C. Do not expose to freezing conditions. NuSeal-LM has a 12 months shelf life when stored in original, unopened containers in accordance with manufacturers instructions.

### HEALTH & SAFETY

NuSeal-LM should only be used as directed. We always recommend that the Material Safety Data Sheet (MSDS) is carefully read prior to application of the material. Our recommendations for protective equipment should be strictly adhered to for your personal protection. The MSDS is available upon request from Newton Waterproofing or online via our web site. Please see contact details below.

### ASSOCIATED PRODUCTS

Newton System 100 - Cementitious waterproofing and repair products.

Newton System 200 - Waterproofing of Decks and Flat Roofs.

Newton System 300 - Waterproofing of Concrete Structures.

Newton System 400 - External waterproofing of earth retained structures.

Newton System 500 - Internal cavity drain waterproofing of earth retained structures.

Newton System 600 - Flooring Sheet Membranes.

Newton System 700 - Liquid Flooring Membranes.

Newton System 800 - Damp Proofing.

Newton System 900 - Primers and Coatings.