

NEWTON 409 ROOTBARRIER

Puncture Resistant Root Barrier Membrane

Rev 2.1 - 18 March 2016

PRODUCT CODE - M32

INTRODUCTION

Newton 409 RootBarrier is designed to eliminate root penetration. It consists of an impermeable High Density Polyethylene (HDPE) membrane, providing robust root-proof protection to the primary waterproofing membrane to green roofs or planters where intrusive root systems are present.

The membrane has high tensile strength and puncture resistance and provides an efficient, reliable and cost effective barrier to provide protection against Japanese Knotweed and other aggressive root systems.

KEY BENEFITS

- Excellent chemical and biological resistance
- Suitable for existing and newly planted trees and plants
- Lightweight
- Durable
- Resistant to sea water and fertilizers
- Quick and easy to install

TYPICAL APPLICATIONS

As a root barrier to protect the waterproofing membrane from root damage within intrusive green roof systems or planters.

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](#)

TOOLS REQUIRED

- Tape measure
- Shears or utility knife

HEALTH & SAFETY

Newton 409 RootBarrier should only be used as directed within this Data Sheet. There is no legal requirement for a Material Safety Data Sheet (MSDS) for this product. PPE should be worn at all times when working on building sites including eye protection when drilling or fixing. Safety procedures should be adhered to when working at height and working within excavations for your personal protection.

INSTALLATION

Newton 409 RootBarrier should be placed above the primary waterproofing membrane and above [Newton 407 DeckDrain](#) if included within the specification.

Cut lengths with a utility knife or shears to suit dimension of the surface area, including vertical up-stands. Subsequent lengths of membrane are placed adjacent to the previously rolled out lengths with an overlap of at least 150mm.

Overlapping joints should be sealed with two lines of double sided Newton Waterseal Tape.

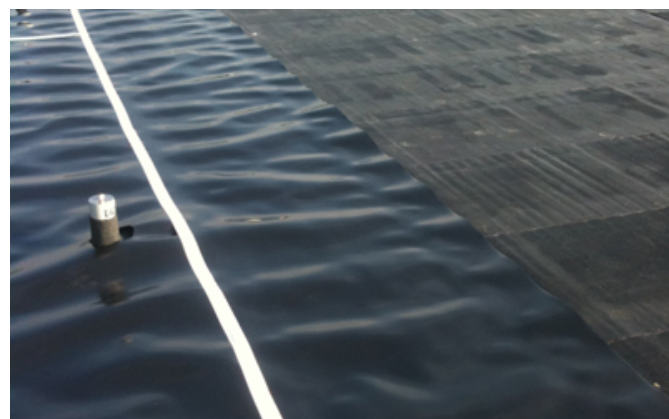
Holes for service protrusions such as pipes or ducts should be cut neatly and then over-sealed with patches of 409 RootBarrier with a double seal of Newton Waterseal Tape. Pipes or ducts may need priming with [102 Nuseal-LM](#) prior to final sealing of the patches to the protrusion.

PACKAGING

Newton 409 RootBarrier is supplied in wrapped and labelled 50m long x 1.2m wide rolls. NOTE: Rolls of Newton 409 RootBarrier are HEAVY, each roll weighs 44kg. Rolls should be cut to size at ground level and pieces lifted to the work area, or full rolls should be lifted by mechanical lifting device. Do not attempt to lift full rolls to height, even with a two-person lift.

STORAGE

Newton 409 RootBarrier should be stored away from direct sunlight. Rolls should be stored in the upright position.



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TECHNICAL DATA

Features – 409 RootBarrier	Result		Units
Width	1.2		m
Length	50.00		m
Area	60		m²
Membrane thickness	1		mm
Density	720		g/m²
Packaged weight	44.00		kg
Service temperature	-40 to +80		°C
Installed Performance	Result	Units	Test Method
Water-flow at 20 kPa – 1:80 slope – Upper layer	0.07	l/m/s	EN ISO 12958
Water-flow at 100 kPa – 1:80 slope – Upper layer	0.04	l/m/s	EN ISO 12958
Water-flow at 200 kPa – 1:80 slope – Upper layer	0.02	l/m/s	EN ISO 12958
Compressive strength – Temporary loading	>240	kPa	ASTM D1621
Compressive strength – Permanent loading	>120	kPa	ASTM D1621
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
CBR puncture resistance	2800.00	N	EN ISO 12236
Tensile strength (Machine direction)	19	kN/m²	EN ISO 10319
Tensile strength (Cross direction)	10	kN/m²	
Chemical resistance	Excellent		EN 14030
Oxidation resistance	Excellent		EN ISO 13438

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