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PRODUCT CODE - M14

### INTRODUCTION

Newton 301 AquaProof is a coated metal waterbar system used for the sealing of construction joints within retained concrete structures.

Newton 301 AquaProof features a highly adhesive, reactive polymer coating on one of its sides. The coating creates a permanent watertight seal with the surrounding concrete to create a waterbar that works immediately.



Installation is quick and easy with the waterbar fitted in place to the reinforcement steel with special clips so that after the placement of the concrete, the waterbar is fully embedded within the two adjoining elements, completely blocking the passage of water through the joint.

Because Newton 301 AquaProof is not fixed to one of the concrete elements as is the case with conventional waterbars, the forming of a kicker upstand is not necessary.

Newton 301 AquaProof metal waterbar is certified to resist water pressure of up to 7 bar (70m), and is resistant to all types of naturally occurring ground water types.

### TYPICAL APPLICATIONS

The waterproofing of construction joints to poured concrete elements of earth retained structures. The following construction joints can be waterproofed with Newton 301 AquaProof:

- Raft - Raft
- Raft - Wall
- Wall - Wall

NEWTON 301 AQUAPROOF	
Material	Steel
Thickness (mm)	2.00
Height (mm)	140
Length (m)	6.00
Watertightness	7 bar (70m water column)
Installation Temperature	No restriction
Service Temperature	-20°C to 70°C

### KEY BENEFITS

- Immediate protection against water pressure - does not need to swell to be effective as is the case with hydrophilic waterbars.
- Extremely high bond between the polymer coating and the surrounding concrete ensuring that water cannot pass even where the concrete has slightly shrunk during curing.
- No kicker or rebate required, reducing site labour costs.
- 100% waterproof up to 7 bar of water pressure.
- Preformed corner parts for quick site installation.
- More durable than conventional waterbars - not easily damaged or moved by the placing or compacting of concrete.
- Can be installed in any weather and at any temperature.

### SUITABLE SUBSTRATE

Static construction joints in poured concrete retained structures.

### 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 301 AQUAPROOF

## Metal Construction Joint Water Bar

### TRAINING & COMPETENCY OF USER

Newton 301 AquaProof should be used by those with an understanding of the requirement to waterproof retained structures and the knowledge and training to use the product as part of a coordinated approach to the waterproofing of the structure, which in many cases will require further waterproofing products so as to achieve the required habitable grade as defined by BS8102:2009.

### TOOLS REQUIRED

- Metal snips.
- Pliers.

### CONSTRUCTION

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

### CONSTRUCTION - NEW CONCRETE

New concrete should be designed by a Structural Engineer to EN 1992 (Formally BS8110 & BS8007). Poured concrete rafts, kickers and foundations should have a surface finish to Class of finish U3 as documented in 'General Specification for Civil Engineering Works' section 14: 'Formwork and Finishes to Concrete', namely a "Uniform, dense and smooth surface" with float marks of no more than 3mm.

### MOVEMENT JOINTS

Please see the data sheet on *Newton 305 ActiveJoint*.

### INSTALLATION

The installation of Newton 301 AquaProof takes place before concreting and is positioned at the middle of the joint within the reinforcing steel. Newton 301 AquaProof is installed with the coated side facing the direction of probable water infiltration. The embedment depth in the first concrete section must be at least 30mm.

Remove the bottom protective foil and secure the metal waterbar to the reinforcing steel with AquaProof Fixing Clips (clipped over the metal waterbar and fixed to the reinforcing steel with wire or cable ties) at 500mm centres to prevent the waterbar from moving or rising up during concreting.

The metal waterbar is bent or shaped by hand to allow it to follow the course of the joint (corners, curves).

Connecting the waterstop strips at a vertical and horizontal joint is carried out after the protective foil has been removed. The metal waterbar strips are connected to each other by pressing them firmly together. The protective foil must be fully removed before pouring the second section of concrete.

### STORAGE

Store in dry conditions.

### PACKAGING

Main product - 6m coils.

### ANCILLARY PRODUCTS

AquaProof Fixing Clips.

### HEALTH & SAFETY

Product 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 Systems or online via our web site. Please see contact details below.

### ASSOCIATED PRODUCTS

Newton 302 InjectionHose - Injection hose waterbar system that can be used in conjunction with Newton 301 AquaProof to provide post-construction grouting of poorly compacted concrete as well as providing a remedial option should a construction joint leak post-construction.

Newton 305 ActiveJoint - MDPE physical waterbar able to resist high water pressure at active movement joints.

Newton 306 SwellMastic - Hydrophilic mastic used to seal around protrusions through the concrete structure such as pipes and conduits.

Newton 307 PipeSeal - Preformed MDPE seal that creates a physical, flanged joint around pipes passing through the structure. 306 SwellMastic should be used to reinforce the joint.

Newton 308 Stopaq - Hydrophilic polymer used for the sealing of services through the structure even when leaking with considerable water pressure.

### NEWTON WATERPROOFING SYSTEMS

Newton System 100 - Cementitious waterproofing and repair products. *Type A - BS8102:2009*

Newton System 200 - Waterproofing of Decks and Flat Roofs.

Newton System 300 - Integral waterproofing of earth retained concrete structures. *Type B - BS8102:2009*

Newton System 400 - External waterproofing of earth retained structures. *Type A - BS8102:2009*

Newton System 500 - Internal cavity drain waterproofing of earth retained structures. *Type C - BS8102:2009*