

## System 300

# NEWTON 308 STOPAQ

## Service Duct Waterproofing

Rev 1.3 - 8 January 2015

### INTRODUCTION

Newton 308 Stopaq is a single component highly flexible compound used for the sealing of conduit and pipes through service duct sleeves. The product is incredibly effective at sealing around numerous services within the sleeve, even where significant water ingress exists. The unique compound never cures, remaining permanently flexible, allowing for new services to be simply pushed through the existing repair and resealed.

Newton 308 Stopaq swells by up to 10% when in contact with water and will seal the service duct against water pressure of up to 3m of water pressure and will form a very effective seal against gas and water vapour.



Newton 308 Stopaq adheres to both wet and dry surfaces of concrete, mortar and plastic without the need of a primer. The swelling characteristics do not create any stresses to the service joint or the structure.

Once the service sleeve is sealed, Newton Stopaq FR Mortar is used to cap the installation. Stopaq FR Mortar is a fibre reinforced non-shrinking fire resistant mortar specially produced for use with Newton 308 Stopaq that can receive new cables or conduits without the use of power tools.

### FEATURES

- Requires only minimal surface preparation.
- Adheres on wet and dry surfaces.
- Fast and easy to apply.
- Has no pot-life, does not become hard.
- Resists up to 0.3 bar of ground water pressure.
- Water and gas impermeable.
- Non Toxic and environment friendly.
- Does not age.

PRODUCT CODE - SX308

#### NEWTON 308 STOPAQ

Material	Synthetic Polyolefin Compound	
Colour	Green	
Specific Gravity	1.2 to 1.5	
Moisture Absorption	10 - 20%	ASTM D 570
Gap filling (mm)	10 to 40mm	
Flash Point	170	
Installation Temperature	20°C to 35°C (product warmed prior to use)	
Service Temperature	-20°C to 30°C	

#### NEWTON STOPAQ FR MORTAR

Mate-	Non-shrinking Mortar	
Colour	Grey	
Specific Gravity	0.8 to 0.85	
Shear Strength (kPa)	207 (50% wc) - 896 (60% wc)	
Tensile Strength (kPa)	4600 (50% wc)	
Installation Temperature	5°C to 35°C	
Service Temperature	-20°C to 95°C	

#### NEWTON 308 STOPAQ - SYSTEM

Watertightness	0.3 bar
wc = water content	

### KEY BENEFITS

- Fast and easy to apply.
- The sealing remains permanently flexible.
- Does not demand special tools for application.
- No material waste - paste re-usable.
- Immediate sealing - no curing time needed.
- Provides permanent and optimal sealing of the service duct.
- No fumes, no chemical reactions.
- Adjusts to movements of pipes & cables.
- Allows adding and removing of conduits at any time

### TYPICAL APPLICATIONS

- Wall inlets below ground water level - Newton 308 Stopaq is suited for sealing against ground and surface water intrusion around pipes and cables, leading through building wall penetrations into basements and other earth retained structures.
- Sealing of running water leaks - For permanent stopping of ground or surface water leaks through cable and pipe wall penetrations.
- Wall penetrations inside buildings - Permanent sealing and protection of wall penetrations against gas, fire or flooding is obtained with Newton 308 Stopaq together with the Stopaq FR mortar on either side of the wall.

# NEWTON 308 STOPAQ

## Service Duct Waterproofing

- Multi pipe & cable inlets - Newton 308 Stopaq sealing compound is excellent for hermetic sealing of multipurpose, horizontal lead-through wall inlets, where several pipes and cables are coming through one opening.

### SUITABLE SUBSTRATE

- Concrete.
- Plastic.
- Brick.
- Block.
- Ceramic.

### 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

Newton 308 Stopaq 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

- Wire brush.
- Small scraper or putty knife.
- Tape measure.
- Injection gun with flexible nozzle.

### CONSTRUCTION

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

Where Newton 308 Stopaq will be used to seal the services through a new service sleeve, the new sleeve should be waterproofed at its interface with the new concrete. This can be achieved with:

Newton 303 PolyProof - 20mm x 2mm hydrophilic waterbar that is wrapped around the service sleeve.

Newton 306 SwellMastic - Swelling mastic that forms a 10mm bead around the service sleeve.

Newton 307 PipeSeal - A pipe flange available for pipe sleeves of 110mm and 160mm outside diameter. For further information and installation instructions, please see the product data sheets.

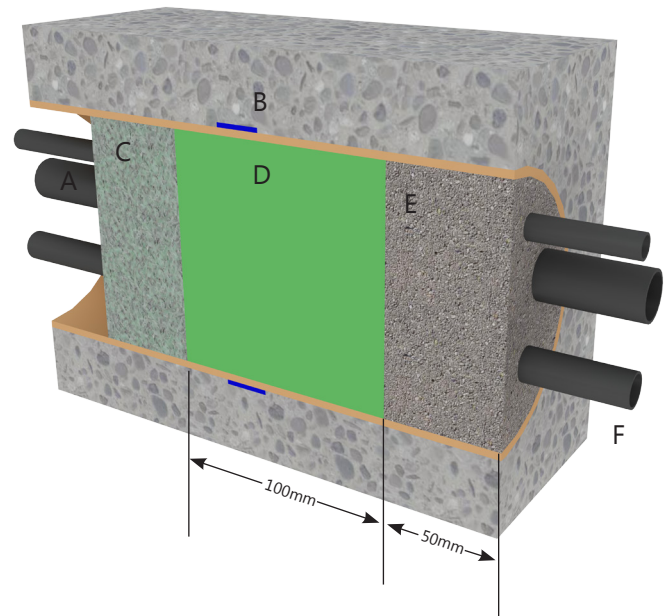
New concrete should be designed by a Structural Engineer to EN 1992 (Formally BS8110 & BS8007). The poured concrete surrounding the service sleeve should be uniform, dense and correctly compacted.

### SURFACE PREPARATION

Clean and roughen the inside of the sleeve or duct with a wire brush and then with a scouring pad. Wipe with a cloth.

### INSTALLATION

When fully installed, the system will look similar to the section below:



- A. Service pipe/sleeve.
- B. Newton 303 PolyProof Hydrophilic water bar.
- C. Foam backer.
- D. Newton 308 Stopaq.
- E. Newton Stopaq FR Mortar.
- F. Service conduits/pipes/cables.

# NEWTON 308 STOPAQ

## Service Duct Waterproofing

1. Pre-heat the cartridges in warm water until they are at approximately 30°C. This makes the sealant much less viscous and much easier to apply via the mastic gun.



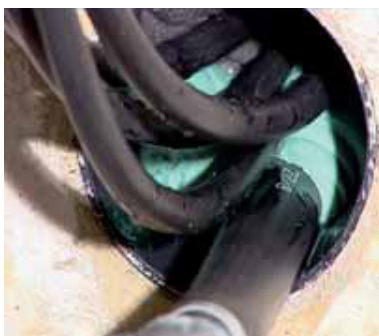
2. Wrap the cables, pipes or conduits with a backing product such as foam. This acts as a stop to prevent too much of the 308 Stopaq passing through the service duct.



3. Push the backing back with a stick so that it is 150mm into the service sleeve



4. Slightly elevate the services and inject Newton 308 Stopaq using an appropriate application gun. Inject about 100mm by inserting the nozzle as deep as possible and then slowly pull back the gun until a large ball of sealant has been applied.



5. Further fill around the services, pressing flexible cables into the 308 Stopaq until they are completely surrounded by the sealant. Then fill completely to within 50mm of the wall surface, pushing the sealant hard to ensure full compaction.



6. Before applying the Stopaq mortar, use a scouring pad to ensure that the last 50mm of the service sleeve is clean and not contaminated with 308 Stopaq.



7. Mix the mortar with exactly 300ml of clean water. Add the water to the bucket supplied.



8. Once the water is fully mixed into the mortar, form a ball. If the ball is too dry and flaky, add slightly more water until the ball is stable and does not fall apart.



9. Fill the remaining 50mm with the mortar. Completely fill in and around the services. Push the mortar into the sleeve tightly until just past flush with the wall.



10. Smooth the face of the mortar with a small scraper, adding a little water to assist.



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## Service Duct Waterproofing

### POST APPLICATION ROUTINES

It might occur that a seal is weeping (the mortar barrier remains wet). If the weeping has not stopped after 48 hours, post filling should be carried out by making a hole, 12 - 15mm diameter, through the mortar barrier. Push the injection nozzle into the hole and apply additional 308 Stopaq sealant. Clean the hole for sealant, wet the mortar and close the hole with a small amount of freshly mixed mortar.

### REMOVAL AND INSERTION OF SERVICES

Service pipes, cables and conduits can be simply pulled out from the sealed sleeve. Shake the service to be removed to slightly break the mortar and pull to extract. Enlarge the hole to about 15mm and inject with 308 Stopaq to about 50mm from the wall surface. Fill with mortar and smooth.

To insert a new service, gouge out and remove the mortar and simply push the service through the Newton 308 Stopaq. Use fingers to push and compress the Newton 308 Stopaq around the services and compress the sealant by pushing. Reseal the service sleeve with Newton FR Mortar.



### POT LIFE

- 308 Stopaq - No pot life - product never cures.
- 30-40 minutes at 20°C.

### STORAGE

Store in dry conditions.

- 308 Stopaq has no shelf life.
- Stopaq FR Mortar has a two-year shelf life.

### PACKAGING

- 308 Stopaq - 0.53kg tubes.
- Stopaq FR Mortar - 0.5kg tubs.

### ANCILLARY PRODUCTS

- Newton 306 SwellMastic.
- Newton 309 ContactAdhesive.

### 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 John Newton or online via our web site. Please see contact details below.

### ASSOCIATED PRODUCTS

Newton 301 AquaProof - 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 water bar that works immediately.

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 303 PolyProof - Range of hydrophilic waterbars for the sealing of concrete construction and movement joints.

Newton 304 PolyProof-Inject - Hybrid that combines the grouting and resin injection capabilities of Newton 302 InjectionHose with the swelling capabilities of Newton 303 PolyProof. The resulting product provides a very high performance waterbar system used for the sealing of construction joints within retained concrete structures.

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 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*