# System 300 NEWTON 308 STOPAQ Service Duct Waterproofing



PRODUCT CODE - SX308

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### INTRODUCTION

<u>Newton 308 Stopaq</u> is a single component highly flexible compound used for the sealing of service sleeves against penetration of ground water and gasses within or around the service sleeve. 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 a 100 mm DN service duct against up to 10 m of water pressure and up to 100 mbar of gas pressure to provide a very effective seal against gas, water and water vapour.

Newton 308 Stopaq adheres to both wet and dry surfaces of most substrate 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

ERBARS, WATERSTOPS AND WATERPLUGS

WAT

NEWTON SYSTEM 300

- Requires only minimal surface preparation
- Adheres to both wet and dry surfaces
- Has no pot-life, does not become hard
- Resists up to 10 m of ground water pressure and 100 mbar of gas pressure (100 mm DN service duct)
- Water and gas impermeable
- Non-toxic and environmentally friendly
- Does not age and has no pot or shelf life expiry

## SUITABLE SUBSTRATE

- Concrete
- Plastic
- Brick
- Block
- Ceramic
- Metal

### **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
- 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

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TECHNICAL DATA		
Features	Result	Units
NEWTON 308 STOPAQ		
Material	Synthetic Polyolefin Compound	
Colour	Green	
Specific Gravity	1.2 to 1.5	
Pack size - Cartridge	0.4	Litres
Pot life	None	
Shelf life	None	
Moisture Absorption (ASTM D570)	5 - 20	%
Gap filling	10 to 40	mm
Flash Point	170	
Installation Temperature	5 to 35	°C
Service Temperature	-20 to +35	°C
NEWTON STOPAQ FR MORTAR		
Material	Fire resistant non-shrinking Mortar	
Colour	Grey	
Cured density	0.8 to 0.85	
Pack size - Tub	0.6	Litres
Pot life - 20 °C	30-40	Minutes
Shelf life	2	Years
Installation Temperature	10 to 35	°C
Service Temperature	-20 to +95	°C
Final curing time - 20 °C	24	Hours
Shrinkage	None	
Setting expansion	0.4	%
Hardness - 48 hours cured - Shore A	80	
Thermal conductivity	0.26	W/mK
NEWTON 308 STOPAQ - SYSTEM		
*Gas tightness - Natural Gas (methane)	100	mbar
*Watertightness	1.0	bar

\* Tested by DVGW-Forschungsstelle am Engler-Bunte-Institut - Test certificate available on request - 100 mm DN duct with max 40 mm between duct wall and service cable/pipe. The product will seal larger ducts if the maximum space between wall and service pipe/cable is not exceeded.

## SPECIFICATION

Newton Waterproofing Sytsems 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 in <u>Technical Drawings</u>. A selection are also available via <u>FastrackCAD</u>, as well as a range of BIM objects on the <u>NBS National BIM Library</u>

## 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 to achieve the required habitable grade as defined by BS 8102:2009.

#### TOOLS REQUIRED

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

## 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.

#### 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

## 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:

<u>Newton 315 Polymer-Waterbar</u> - 20 mm x 2 mm hydrophilic waterbar that is wrapped around the service sleeve.

<u>Newton 306 LeakSeal</u> - Swelling mastic that forms a 10mm bead around the service sleeve.

<u>Newton Hauff KG-FIX Wall Collar</u> - A pipe flange available for pipe sleeves of 110 mm and 160 mm 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 BS 8110 & BS 8007). The poured concrete surrounding the service sleeve should be uniform, dense and correctly compacted.

#### **REMOVAL AND INSERTION OF SERVICES**

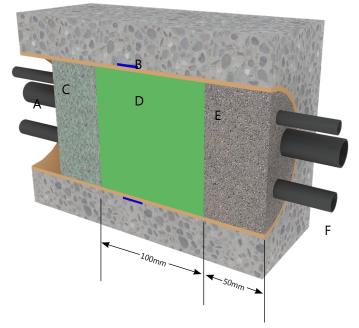
Service pipes, cables and conduits can be simply pulled out from the sealed sleeve. Shake the service to be removed to slightly break the mortar and pull to extract. Enlarge the hole to about 15 mm and inject with 308 Stopaq to about 50 mm from the wall surface. Fill with mortar and smooth.

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.

## PACKAGING

- 308 Stopaq 0.53 kg tubes = 0.4 Litres
- Stopaq FR Mortar 0.5kg tubs = 0.6 Litres

## INSTALLATION



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

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

#### 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 - 15 mm 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.

## LIMITATIONS

Stated tested performance is to a service duct of 100 mm with a maximum of 40 mm between duct wall and service cable/pipe. The product will seal larger ducts if the maximum space is not exceeded. Increasing the mortar thickness or the use of a stronger mortar will increase performance, but this is not tested.

#### 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.

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#### INSTALLATION INSTRUCTIONS



1. Preheat the cartridges to  $30^{\circ}$ C. This makes the sealant much easier to apply via the mastic gun



3. Slightly elevating the services, inject about 100 mm of sealant, slowly pulling back ensuring that all voids are filled



5. Mix the mortar with exactly 30 ml of water. Add the water to the supplied container and mix with the dry mortar



7. Push the mortar tightly into the sleeve to the wall surface to fill the remaining 50 mm of depth with mortar



2. Insert a piece of foam to act as a back-stop, pushing into the duct with a stick so that it is 150 mm in from the wall surface



4. Further fill around the services, pushing hard to ensure full compaction and to within 50 mm of the wall



6. When fully mixed, form a ball or mortar. Add more water as required until the ball is stable and does not fall apart



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

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