



# Fosroc Solutions for Construction and Repair in the Water Industry

[www.fosroc.com](http://www.fosroc.com)



*constructive solutions*

# ABOUT FOSROC INTERNATIONAL

Since the company's beginnings over 50 years ago, Fosroc has developed into an International leader in delivering Constructive Solutions for projects across a broad range of market segments including transport, utilities, industrial and general buildings.

Fosroc's commitment to customer service and technical support is second to none. We work closely with architects, structural engineers, contractors and owners to best understand their requirements. Together we can develop a bespoke solution for a construction project, adding value and becoming a solution provider, rather than just a materials supplier.

Fosroc has an extensive network of offices and manufacturing locations across Europe, the Middle East, India, North and South Asia, and is further represented in other regions across the world by distributor and licensee partners.

Selecting from the full portfolio of Fosroc products and services and integrating expert technical support, world class customer service and innovation, Fosroc goes beyond just product selling to ensure that we partner with our customers to deliver complete constructive solutions.

- > Admixtures
- > Adhesives
- > Protective Coatings
- > Concrete Repairs
- > Industrial Flooring
- > Grouts & Anchors
- > Joint Sealants
- > Surface Treatments
- > Grinding Aids
- > Waterproofing



Fosroc has a long established record of supply to the water industry for both new and refurbishment projects from our range of Water Regulations Advisory Scheme (WRAS) approved materials, with other highly resilient products available for use in waste water treatment plants. These include waterproof membranes, waterstops, joint sealants, concrete repair mortars, protective coatings, grouts and concrete admixtures manufactured to the highest quality standards backed by independent test certificates.

Fosroc engages with projects from an early stage which helps to ensure that construction details and requirements of the project are aligned not only to the relevant Water Supply (Water Quality) Regulations and industry standards BS 8102 and BS EN1504, but also remain buildable on site. Fosroc's Specification Hub supports this process by issuing a bespoke specification document, including project specific drawings and technical advice. Ongoing support continues throughout construction with site visits and technical support where necessary to ensure the correct application of products and a successful outcome to the project.



## FOSROC DELIVER SOLUTIONS NOT JUST PRODUCTS

### CAD Details

A library of standard CAD details is available, bespoke CAD details can be created for your specific project.

### Project Specifications

Dedicated specification managers on hand to assist with correct system choices and tailored solutions.

### Site Support

Expert product and application support made available from our specialist teams.

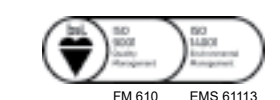
### Seminar & Training

Comprehensive programme of seminars and training courses designed to expand and reinforce your knowledge.

### Fosroc WRAS approved materials

Fosroc Polyurea WPW	WRAS
Nitocote EP405	WRAS
Nitomortar FC	WRAS
Nitocote CM210	WRAS
Nitoseal MS600	WRAS
Supercast PVC	WRAS
Renderoc ST 05	WRAS
Renderoc Plug 20	WRAS *
Brushbond FLXIII	WRAS
Supercast SW10/20	WRAS
Conbextra BM	*

\* Included in the List of Approved Products for use in Public Water Supply in the United Kingdom







# RESERVOIR NEW BUILD



The construction of a concrete reservoir can involve both the placement of ready mixed concrete and precast concrete units requiring a waterproofing solution for both movement and construction joints:



Supercast PVC Waterstops



Conbextra BM



**Movement joints**

- [Supercast PVC](#) waterstops are used in movement joints and have a centre bulb that accommodates expansion / contraction / shear movement without loss of integrity. Suitable for a Hydrostatic head of up to 40m.
- The movement joints are sealed internally with [Nitoseal MS600](#) joint sealant.



Supercast SW20

**Construction Joints**

- Hydrophilic waterstops are the most widely used form of watertight concrete joint waterproofing, with [Supercast SW20](#) used in construction joints and [Supercast SWX](#) in penetration details.



Nitoseal MS600

**Grouting**

- Structural bedding in of precast modular concrete is carried out using [Conbextra Bedding Mortar](#) which is included in the list of Approved Products for use in Public Water Supply in the United Kingdom.



Fosroc has developed a system using Proofex 3000 high performance waterproofing membrane, Proofex Sheetdrain 80 drainage and protection membrane, in conjunction with Nitoproof 800 and UVR Topcoat to provide a cost effective, bonded solution for the construction of reservoir roofs. This system has been successfully applied in multiple projects across the country.

## PROOFEX 3000



**High performance waterproofing for reservoir roofs**

Proofex 3000 is a 1.5mm thick, high performance, self-adhesive membrane that forms a secure, water tracking resistant bond to a primed concrete substrate. It is able to accommodate substrate movement without failure and is flexible to facilitate detailing around upstands.

## PROOFEX SHEETDRAIN 80

**Geocomposite HDPE drainage and protection membrane**

Proofex Sheetdrain 80 is a geocomposite drainage sheet with a 8mm thick HDPE cusped core and non-woven polypropylene geotextiles, recommended for most building and civil engineering drainage applications.

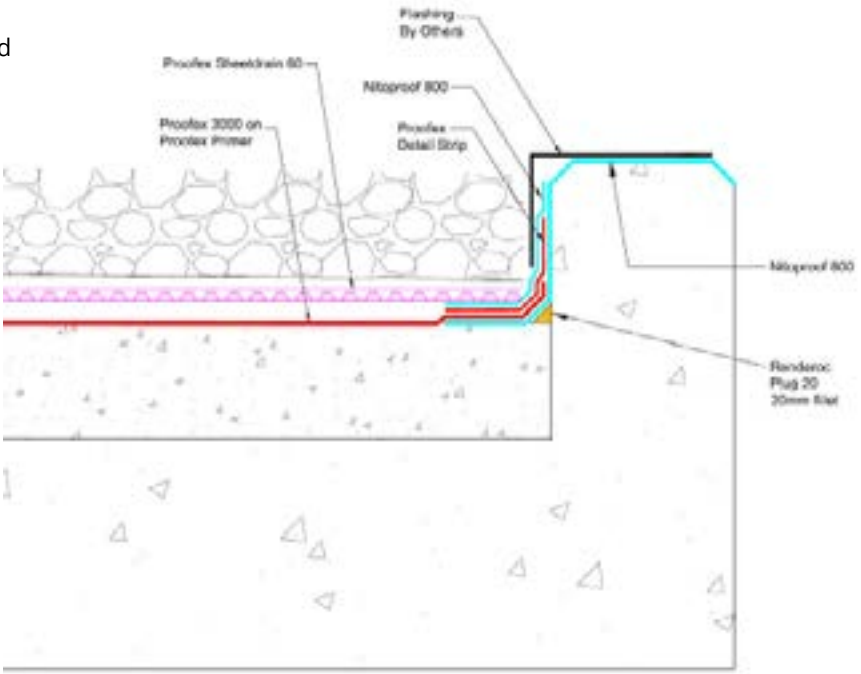
## NITOPROOF 800

**High performance elastomeric, UV resistant, waterproofing system**

The Nitoproof 800 System is a high performance, elastomeric, robust, surfacing system suitable for exposed conditions. It is particularly suited for the reservoir roof upstand detail where it is easily applied to complex shapes providing a seamless waterproof surface.



Fosroc reservoir standard detail showing upstand





# RESERVOIR REFURBISHMENT



Structures in water treatment works deteriorate over time and require remediation including replacement of the roof surface and membrane. In most cases all of the existing jointing materials have to be removed and replaced with new, high performance joint sealants. In addition water ingress through the failed waterproofing could result in structural defects requiring the use of repair products to remediate defective areas. The Fosroc system for refurbishment includes:



Nitoproof 800 applied to upstands



Proofex 3000



Nitocote CM210



Renderoc ST 05

- Replacing the existing membrane with [Proofex 3000](#) laid on a prepared surface primed with Proofex Primer and overlaid with [Proofex Sheetdrain 80](#) protective drainage layer.
- To ensure watertightness of the reservoir, movement joints are sealed and then over-banded using [Expoband H45](#) bonded with Supastik E10 Adhesive prior to the Proofex 3000 membrane installation.
- Perimeter upstands are primed, then waterproofed with [Nitoproof 800](#) before overcoating with [UVR Topcoat](#).
- Emergency concrete repairs are carried out using WRAS approved Renderoc Plug while [Renderoc ST 05](#) can be used as a protective fairing coat.
- Where a cementitious coating is required [Nitocote CM210](#) can be applied to provide waterproofing protection.
- [Polyurea WPW](#) can be spray applied to provide an anti-corrosion, waterproof and protective coating for the internal linings of potable water containment structures.



Nitoseal MS600

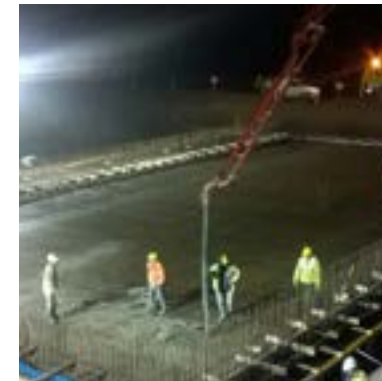


Expoband H45

# WASTE WATER TREATMENT PLANTS



Construction and maintenance of waste water plants requires high performance products suitable for this most aggressive and demanding of environments where concrete will deteriorate over time if not suitably protected using high performance coatings to ensure long life.



Supercast PVC



Tank before repairs

New construction of this WWTP included:

- [Supercast PVC](#) Hydrofoil and Rearguard water bar used in horizontal and vertical joints.
- [Supercast SW20](#) and [Supercast SWX](#) around pipe penetrations.
- [Conbextra TS](#) grout used to fill the openings around the pipe penetrations in a single application.
- [Nitoseal MS600](#) joint sealant is widely used because of its ability to resist degradation and de-bonding in permanently immersed conditions.



Grouting around pipe penetrations using Conbextra TS

This tank's internal refurbishment has been carried out using a range of Fosroc systems:

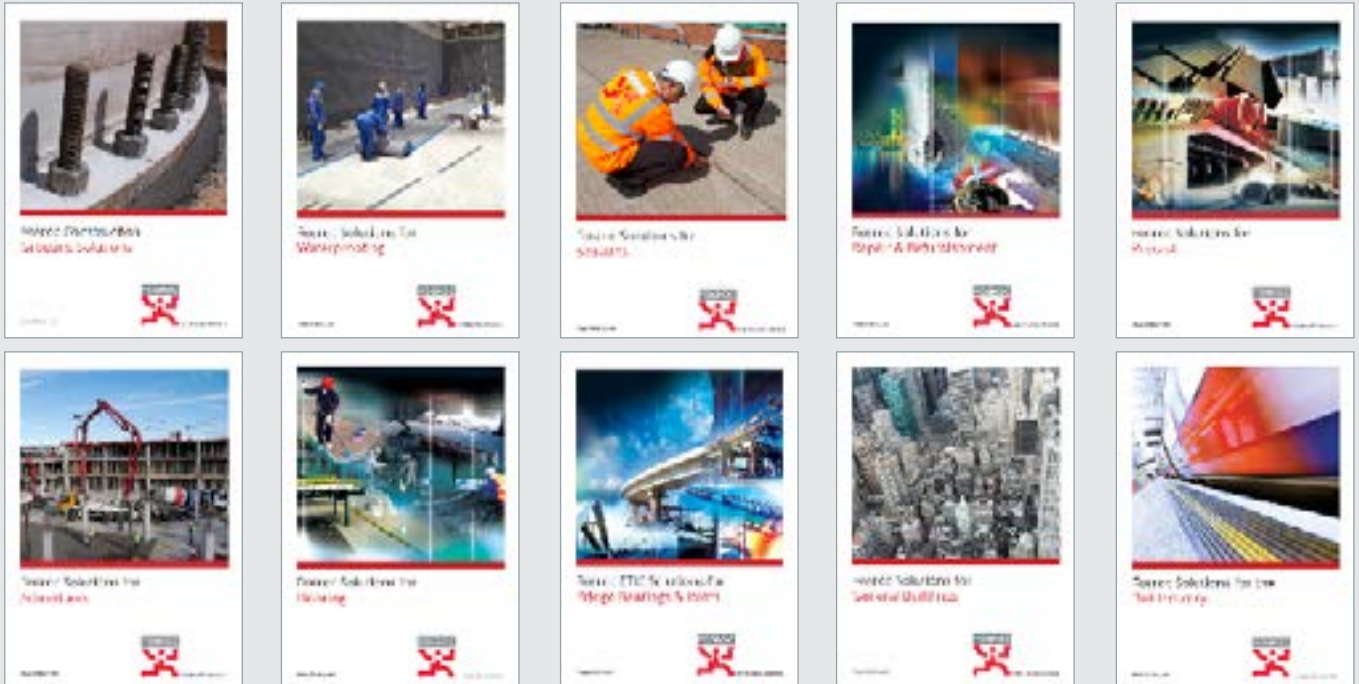
- The tank floor was fast-tracked back into service. It was re-screeded using [Paveroc](#) which was epoxy-bonded to the parent concrete with [Nitobond EP](#). The tank walls were re-profiled using [Renderoc HB45](#), before coating the complete tank with [Nitocote EN901](#), an epoxy-novolac coating.
- Other fast-track repair materials for these environments include [Renderoc FCR](#) and epoxy repair mortars such as [Nitomortar HB](#) and [Nitomortar PE](#).



Re-screeding with Paveroc



Fosroc offers a full range of construction chemical solutions, helping to protect structures throughout the world. Please refer to our brochures, which include:



Fosroc International Limited  
Drayton Manor Business Park  
Coleshill Road  
Tamworth  
B78 3XN  
Tel: 01827 262222  
Email: [enquiryuk@fosroc.com](mailto:enquiryuk@fosroc.com)  
[www.fosroc.com](http://www.fosroc.com)

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