



# FOSROC INTERNATIONAL

SOLUTIONS FOR THE WATER INDUSTRY



*constructive solutions*

# ABOUT FOSROC INTERNATIONAL

Since the company's beginnings over 80 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 more than just a materials supplier, but a solution provider.

Fosroc has an extensive network of offices and manufacturing locations

across Europe, the Middle East, Africa, India, North, South and East 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

#### 48 HOUR SITE SUPPORT

Expert product and application support made available from our specialist teams

#### PROJECT SPECIFICATIONS

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

#### SEMINAR & TRAINING

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

#### CAD DETAILS

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

## LEADER IN DELIVERING CONSTRUCTIVE SOLUTIONS WORLDWIDE

**In the water industry the demand for high performance, time-saving and sustainable solutions is as great as it has ever been.**

Our specification teams at Fosroc will ensure that the demands of project specific needs are being met and our site support staff can ensure that projects run smoothly, while clients, engineers and contractors are kept updated with the progress of their projects.

Be it clean water supply, waste-water processing or energy generation through hydro-electric schemes - Fosroc have a longstanding reputation for delivering constructive solutions. This enables these schemes to be delivered with a line of communication and support which is essential in carrying out a lasting solution.

Our product offering across multiple material sectors ensures that new systems are compatible, trusted and reliable, while also ensuring that older structures can be repaired and successfully put back into service.



# COMPATIBILITY ENSURES ACCOUNTABILITY

The water industry is a sector where it is essential that projects run on time, first time. Whether on New Build or on Refurbishment projects, FOSROC can offer site specific solutions backed by project warranties, ensuring client peace-of-mind.

Our team of Specification Managers have the experience to make sure that well-considered proposals become part of the design intent. Our Site Support Managers can then help ensure that applicators are comfortable with the products used.

Lasting solutions rely on compatibility between many product ranges and material types, each one designed to offer the performance required in this demanding industry.

Our large database of case studies highlight our extensive experience in the water industry and provide examples of our systems functioning day in, day out.

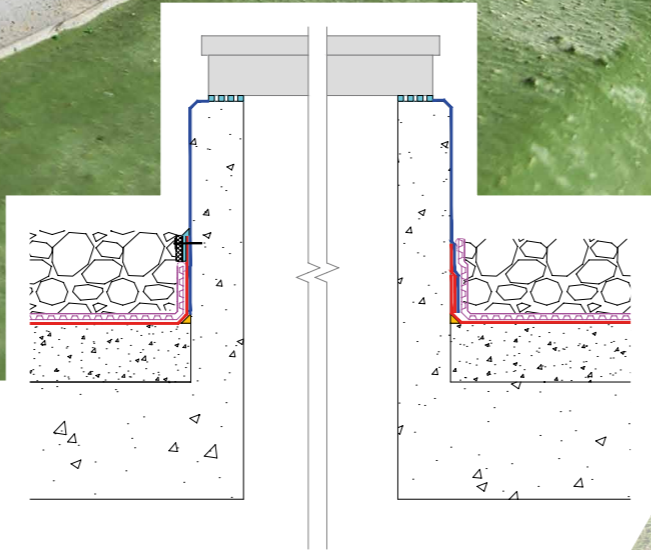
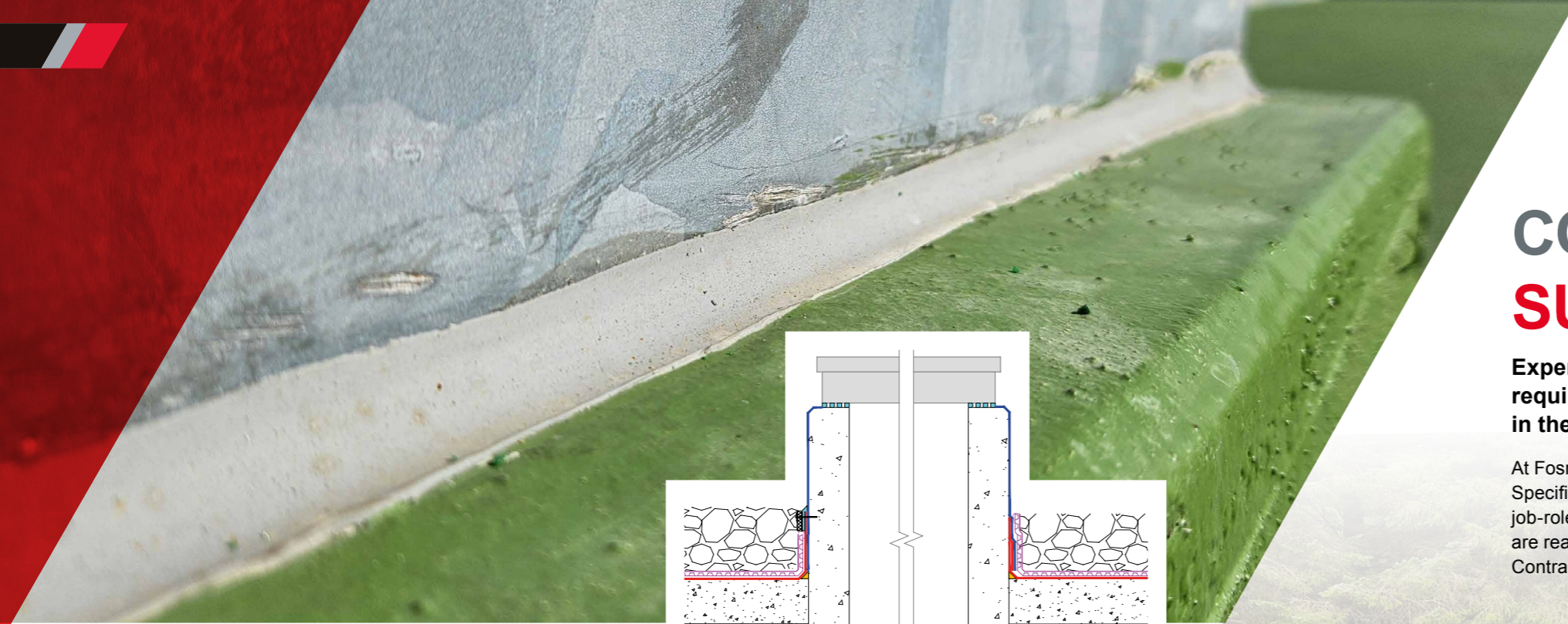
# EXTENDING ASSET LIFE

At the heart of a sustainable future is the need to ensure that our structures have longevity and that they can be maintained successfully and reliably.

Through careful inspection, testing and specification, Fosroc is dedicated to not only help create state of the art solutions for new industry facilities, but is equally committed to help ensure a long service-life for existing water infrastructure.

Our refurbishment solutions come with warranties of up to 20 years. This helps reduce intervals between expensive, intrusive shut-down maintenance.





# CONTRACTOR SUPPORT

**Experience has taught us that success in the water industry requires careful collaboration between all parties involved in the construction and refurbishment process.**

At Fosroc, the heart of this communication lies with our network of Specification Managers and Site Support Managers. Providing these essential job-roles helps us ensure that solutions are suitable, project materials are readily available, and that all assistance is provided to the Specialist Contractor to ensure the client's needs are met.

# TAILOR-MADE DETAILING DESIGN

**Any technical solution, especially those involving management of water, relies on careful detailing to provide the link between design intent and application success.**

At Fosroc we have in-house CAD technicians who communicate with our Specification Hub, Specification Managers and external Project Engineers and Specialist Contractors to achieve the desired solution.

Warranty-backed proposals are reliant on this communication, as it ensures the design detail decisions we make, are in-line with the projects demands and the performance of the Fosroc material.



# CONCRETE SOLUTIONS FOR RESERVOIR CONSTRUCTION

Repairs and maintenance for clean and dirty water



1

## WATERSTOPS

- > Supercast SW10/SW20
- > Supercast PVC

2

## WATERPROOF CONCRETE

- > Supercast CWA
- > Supercast WCP

3

## ROOF DECK WATERPROOFING

- > Nitodek FS
- > Brushbond FLXIII
- > Fosroc Polyurea WPE
- > Nitocote CM210
- > Proofex 3000/3000MR

4

## DRAINAGE MEMBRANES

- > Proofex Sheetdrain 80
- > Proofex Cavitydrain

5

## CONCRETE REPAIR

- > Renderoc Patch
- > Renderoc Plug
- > Renderoc LA
- > Renderoc HB45
- > Paveroc

6

## PROTECTIVE COATINGS

- > Renderoc ST05
- > Nitocote EP405
- > Nitocote EN901
- > Fosroc Polyurea WPE

7

## FILLER BOARDS

- > Hydrocell XL

8

## JOINT SEALANTS

- > Nitoseal MS600

9

## BASE & WALL WATERPROOFING

- > Proofex Engage
- > Proofex 3000/3000MR

10

## WATERPROOF BANDAGE SYSTEM

- > Expoband 100
- > Supastik E10 Adhesive

11

## GROUTS

- > Conbextra PM
- > Conbextra GP/BM

# REFURBISHMENT



## WATERPROOFING

Proofex 3000

- > 20m<sup>2</sup> rolls for quick and reliable installation.
- > Tough and flexible makes it ideal for detailing.
- > Very fast application with Proofex Primer SP.



## DRAINAGE

Proofex Sheetdrain 80

- > 48m<sup>2</sup> rolls means large areas covered quickly.
- > High impact resistance.
- > Attached geotextile prevents silt build up.
- > High water flow rate reduces vegetation growth.



## JOINT BONDING

Expoband 100

- > Perforations to outer edge provide a mechanical key for Supastik E10 adhesive.
- > Accommodates continuous and pronounced cyclic movement.
- > Heat weldable jointing.
- > Excellent resistance to weathering.
- > Compatible with Proofex 3000 and Nitodek FS systems.



## ROBUST, UV RESISTANT SURFACING

Nitodek FS

- > Very fast curing allows for maximising weather windows.
- > Cure times can be controlled by the volume of hardener added.
- > Liquid applied for easy detailing.
- > Anti-slip for trafficable applications.



## CEMENTITIOUS COATING FOR WATERPROOFING

Nitocote CM210

- > No primer required.
- > Resistant to both positive and negative water pressure.
- > Versatile application by brush, roller, trowel or spray.
- > Can be applied to damp concrete.
- > Excellent bond to concrete and masonry.



## HIGH PERFORMANCE JOINT SEALING

Nitoseal MS600

- > Recommended for use in contact with potable water.
- > Exhibits excellent water resistance.
- > Cures to a tough, elastic rubber seal.
- > Resistant to aerobic and anaerobic bacteriological attack.
- > Isocyanate free technology.
- > Can be applied to damp concrete



## REINSTATEMENT OF REINFORCED CONCRETE

Renderoc LA

- > Excellent bond to prepared concrete with no primer required.
- > Self-compacting nature eliminates honeycombing and displaces air without vibration.
- > Pre-bagged to overcome site-batched variations — only the site addition of clean water is required.
- > Can be placed by hand or by pump depending on application.

# STRENSHAM WATER TREATMENT WORKS

Worcestershire, UK | Severn Trent Water | 2019

## THE PROBLEM

The contact tank at Strensham Water Treatment Works was showing significant signs of deterioration requiring works for the replacement of the roof surface and membrane. All of the joints were to be removed and replaced with new, fit for purpose sealants. In addition concrete repairs were also carried out to defective areas.

## THE BENEFITS

There was full and consistent dialogue between all parties working on this project between the client, the consulting engineers, main contractor and the installer of the Fosroc solutions and products. In addition to waterproofing materials Fosroc were able to supply products across the range including joint sealants, concrete repair and grouts.

Fosroc were always on hand, regularly attending site as the installation progressed. This is one of several projects that have been undertaken by Severn Trent Water where the Fosroc waterproofing solution has been used.

## THE SOLUTION

Products used...

- > Proofex 3000
- > Proofex Sheetdrain 80
- > Nitoseal MS600
- > Expoband H45

In conjunction with the client and designers, Fosroc wrote a comprehensive specification covering all aspects of works to be carried out. For the replacement membrane Proofex 3000 was laid on a prepared surface primed with Proofex Primer and overlaid with Proofex Sheetdrain 80 protective drainage layer. All movement joints sealed with Nitoseal MS600 joint sealant supported by Expandafoam Cord. The movement joints were also over-banded using Expoband H45 bonded with Supastik E10 Adhesive prior to the Proofex 3000 membrane installation.

## THE HIGHLIGHTS

- > Nitoseal MS600 applied to joints Roof surface made ready for application of Proofex 3000
- > Expoband 100 applied to joints
- > Proofex 3000 applied



# NEW BUILD



## WATERPROOFING

Proofex 3000

- > 20m<sup>2</sup> rolls for quick and reliable installation.
- > Tough and flexible makes it ideal for detailing.
- > Very fast application with Proofex Primer SP.



## CEMENTITIOUS COATING FOR WATERPROOFING

Nitocote CM210

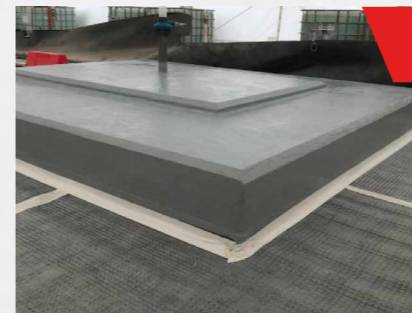
- > No primer required.
- > Resistant to both positive and negative water pressure.
- > Versatile application by brush, roller, trowel or spray.
- > Can be mixed to a gun-able consistency gunned into chases and trowelled for static cracks.
- > Can be applied to damp concrete.
- > Excellent bond to concrete and masonry.



## HIGH PERFORMANCE JOINT SEALING

Nitoseal MS600

- > Recommended for use in contact with potable water.
- > Exhibits excellent water resistance.
- > Cures to a tough, elastic rubber seal.
- > Resistant to aerobic and anaerobic bacteriological attack.
- > Isocyanate free technology.
- > Can be applied to damp concrete.



## ROBUST, UV RESISTANT SURFACING

Nitodek FS

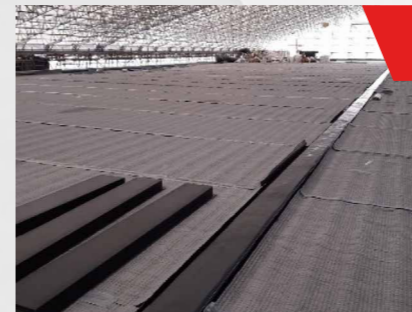
- > Very fast curing allows for maximising weather windows.
- > Cure times can be controlled by the volume of hardener added.
- > Liquid applied for easy detailing.
- > Anti-slip for trafficable applications.



## JOINT BONDING

Expoband 100

- > A hypalon membrane system which is designed to be bonded over movement joints or cracks in structures to prevent the passage of water. It is bonded in position using Supastik E10 two-part epoxy adhesive.
- > Excellent resistance to weathering.
- > Compatible with Proofex 3000 and Nitodek FS systems.



## DRAINAGE

Proofex Sheetdrain 80

- > 48m<sup>2</sup> rolls means large areas covered quickly.
- > High impact resistance.
- > Attached geotextile prevents silt build up.
- > High water flow rate reduces vegetation growth.

# NEW BUILD



## SWELLABLE WATERSTOP

### Supercast SW20

- > Easy to install by adhesive bonding, or by casting into joint faces and Supercast PVC networks
- > Solves detailing problems in conjunction with Supercast PVC waterstops
- > Swelling properties unaffected by long term wet/dry cycling
- > Tolerant of salts in concrete and groundwater
- > Sustains effective seal in wet conditions and highly adaptable to accommodate complex joint shapes



## LARGE AND HEAVY DUTY ANCHORING

### Lokfix E77

- > Pure epoxy 3:1 resin cartridge system, for anchoring reinforcement and fixings into a variety of substrates when penetrating through waterproofing coatings such as Nitodek FS and Nitocote CM210
- > High bond strengths for heavy weight fixings or economical design -speak to a Fosroc specialist for more information.



## WATERPROOF MEMBRANE SYSTEM

### Proofex Engage

- > Pre-applied waterproofing membrane, which mechanically bonds to poured concrete and eliminates the potential for water to track between the membrane and the concrete.
- > Ideal for buried structures



## JOINTS

### Supercast PVC Waterstops

- > Cast in PVC waterstop for construction and movement joints
- > Profiles to suit either a central or concrete face location
- > Preformed junction pieces to simplify installation
- > Suitable for a hydrostatic head of up to 100m



## EPOXY WATERPROOF GROUT FOR PILE CAPS

### Proofex WG

- > High performance epoxy waterproof resin for detailing of waterproofing.
- > Great for waterproofing continuity around piles within buried structures.

## CUSTOMER TESTIMONIAL

*"As part of the upgrade works to the Osberstown Waste Water Treatment, we engaged the services of Fosroc to advise on any solutions they could offer. They were able to assist in areas such as concrete repair and chemical resistant coatings throughout the plant, in a variety of settings. Over a period of 5 years, Fosroc regularly attended site meetings and continuously reacted to changing site conditions. Fosroc always offered a professional service and their products have ensured extending the lifespan of the structures worked on, and I have no hesitation in recommending them." - Tadhg Donnelly, Contracts Manager, Veolia Ireland.*

# FOSROC: LEADING THE WAY IN SUSTAINABLE SOLUTIONS

## SUSTAINABILITY IN ACTION

Our unique Constructive Solutions and extensive product range are designed with sustainability in mind—from cement production through to final finishes, ensuring our clients receive top-tier, eco-friendly products alongside exceptional service.

For over 15 years, our UK operations have maintained ISO 14001 certification, audited by the British Standards Institute Group. This certification reflects our adherence to an effective, continually improved environmental management system that drives sustainability across all areas of our business.



At Fosroc, we are dedicated to making a positive environmental impact through responsible practices in everything we do. Our commitment to sustainability means we provide innovative, high-quality solutions to our global clients while efficiently using resources to reduce waste, costs, carbon footprint, and environmental impact.

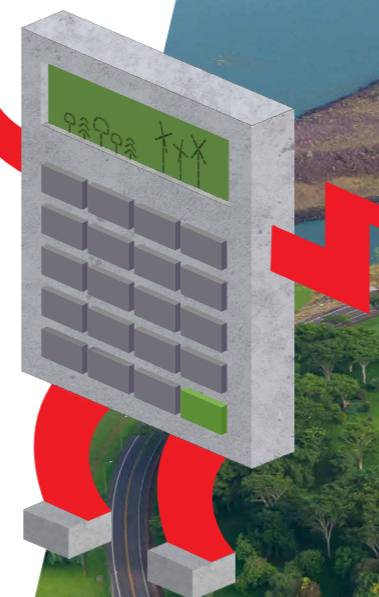
## COMMITMENT TO IMPROVEMENT

Our UK site's active Environmental Health and Safety committee leads our sustainability initiatives by tracking data, evaluating progress toward EHS targets, and proposing innovative solutions for continuous improvement.

We independently verify and publish Environmental Product Declarations (EPDs) to help our customers make informed choices about sustainable solutions.

## INTRODUCING THE 'CARBON CALCULATOR'

Fosroc's new Carbon Calculator is a free, groundbreaking tool available for architects, engineers, specifiers, suppliers, and contractors. This easy-to-use tool quickly and accurately measures the carbon savings achieved when using our products, empowering industry professionals to make more sustainable decisions.



# BECKTON SEWAGE TREATMENT WORKS

Barking, UK | Thames Water Utilities | February 2023

## THE PROBLEM

The wastewater treatment site at Beckton is a newly constructed facility for Thames Water Utilities, designed by the architect Atkins.

The main contractor for the construction project, Laing O'Rourke, engaged waterproofing specialist Prestec for the installation of ground gas protection, which was required across multiple ancillary buildings. The Laing O'Rourke team based at Beckton had previously worked closely with Fosroc on the Northern Line Extension project.

From this, they were already familiar with Fosroc products, and confident in Fosroc's capability to overcome any changes and issues that inevitably arise in the build phase. By proposing constructive design solutions in conjunction with the contractor, Fosroc ensured the solutions could be successfully built within the required construction programme.

## THE BENEFITS

The flexibility of the two systems and in particular, the supporting ancillary products within the range, enabled Fosroc and Laing O'Rourke to adapt the details of each to suit the different buildings and conditions. Laing O'Rourke chose to employ the skills of specialist contractor, Prestec, who worked closely with Fosroc to ensure the realisation of the intended design and function, despite some challenging weather conditions.

## THE SOLUTION

Products used...

- > Proofex Engage
- > Proofex Total
- > Proofex WG

Proofex Engage was selected as the gas resistant solution for the below ground elements of the project, with Proofex Total being used for the ground level elements.

The project consisted of providing protection for a series of buildings, including a switch room, blower house, sludge cake barn and several kiosk structures. It was important to the team that the products chosen as part of the general strategy could be adapted by design to fit in with the specific requirements of each different structure, and that as many repeat elements could be ported across as possible, as a time-saving measure.

*"[Fosroc's] commitment to delivering tailor-made detailed design and robust assistance throughout the project delivery life cycle, marks Fosroc as an exemplary partner on complex construction projects. Their international footprint, adaptability to diverse projects, combined with their extensive expertise in engineering and construction, only underlines their status as a front-runner in the construction sector and a vital strategic partner for Laing O'Rourke."* Kamaldeep Singh Kalyan, BEng MSc LLm, Laing O'Rourke, Civil Engineer

## THE HIGHLIGHTS

- > Multiple service penetrations required detailing throughout
- > Laying Proofex Engage in low temperatures
- > Installation of Proofex WG and shaping of membrane required

# GOWRIEHILL RESERVOIR

Scotland | Scottish Water | February 2022

## THE PROBLEM

Gowriehill Distribution Service Reservoir is located in Dundee City and managed by Scottish Water. In late 2021, part of the reservoir tank construction was discovered to have a brittle asphalt waterproofing layer over the top of a beam and block roof. Scottish Water commissioned Mackenzie Construction, who in turn commissioned specialist contractor Fraser Bruce Group to resolve the issue. Fraser Bruce Group have a long-standing relationship with Fosroc, having worked together for nearly 40 years on a variety of concrete repair and waterproofing projects. The key requirement for this project was to find a suitable solution that would stand the test of time, so only a solution offering a 20-year warranty would be considered in the specification.

## THE BENEFITS

By sealing each of the joints in the beam and block roof, the passage of water vapour could be prevented and the application of the detail strip over the joints allowed for any differential movement, should there be any. Following the sealing of the joints, Proofex 3000 was applied to the entire roof area including the joints to achieve a robust waterproof solution prior to the application of Proofex Sheetdrain 80.

The proposed Fosroc solution was easy to apply and provided a robust watertight finish that will last for decades. The contractor and client were so impressed by the results in fact, that the solution has now also been proposed for use in other similar applications with Scottish Water.

## THE SOLUTION

Products used...

- > Nitoseal MS600
- > Proofex Engage Detail Strip
- > Proofex 3000
- > Proofex Sheetdrain 80
- > Nitocote CM210

An initial site inspection was carried out to establish the current condition of the roof, followed by consultation with Fosroc's National Waterproofing and Technical teams to find the correct solution. The specification that followed was subject to adhesion tests which were carried out on site the following week. Following mechanical preparation of the deck and all the joints the following solution was proposed. Nitoseal MS600 was to be applied to all the joints between the precast slabs, to prevent the passage of water or water vapour from the tank below. Proofex Engage Detail Strip was then applied across the joints, prior to the application of Proofex 3000 self-adhesive membrane across the entire roof. Proofex Sheetdrain 80 was placed on top of the Proofex 3000 prior to reinstating the overburden.

## THE HIGHLIGHTS

- > This buried reservoir roof was fully excavated in order to remove and replace the waterproofing system
- > Nitoseal MS600 applied to all the joints prior to over-banding with Proofex Engage Detail Strip.
- > Proofex Sheetdrain 80 applied following the completion of the Proofex 3000



# OLD MELDRUM DSR

Aberdeen, Scotland | Scottish Water | June 2024

## THE PROBLEM

Old Meldrum DSR (Distribution Service Reservoir) is an exposed water tank that sits within the grounds of Old Meldrum Golf Club. The existing waterproof coating was beyond its service life and was failing and de-bonding in places. It also had areas of failed concrete on the vertical walls that needed to be cut out and repaired. The requirement was to remove the existing coating before mechanically preparing the deck and applying a new, fast setting, UV resistant and anti-slip coating, as well as carrying out the required structural repairs. It was also critical that the finished tank blended into the surrounding area as it sits just off the fairways of the golf course. Morrison Construction and Fraser Bruce Group have worked with Fosroc on several Scottish Water tanks as part of the ongoing SR21 framework and investment plan. This collaborative approach was also implemented on this project to amend, develop and deliver details and solutions for varying issues faced on site.

## THE BENEFITS

Due to the 60-minute cure time of Nitodek FS, the Fraser Bruce Group were able to apply all the required layers in minimal time, keeping costs down for the contractor and client. The versatility of Nitodek FS also allowed for different build ups to be applied in different tank areas depending on risk and other factors. Scottish Water have the reassurance that the repair materials, deck waterproofing and joint sealants are compatible as they are all sourced from Fosroc and covered under a 20-year warranty.

## THE SOLUTION

Products used...

- > Renderoc HB45
- > Nitodek FS
- > Renderoc Primer
- > Nitoseal MS600

Repairs to the walls were square cut back to a minimum depth of 10mm and the substrate saturated and primed with Renderoc Primer, prior to being reinstated with Renderoc HB45. As with other projects of this type, the same process of removing the existing waterproofing, preparing the deck and re-instating the new waterproofing was followed. On this project however, there was a requirement to create falls on the tank to prevent ponding and water freezing. As a precaution, Scottish Water staff had been wearing spiked shoes when walking on the deck in winter. So when preparing the deck, falls were created to allow water to shed, and Nitodek FS Wearcoat walkways were installed with a larger anti-slip aggregate. Nitodek FS Topcoat was applied in RAL 6010 Grass Green to stay in keeping with the surrounding area. The Nitodek FS was terminated under the tech cover lids and sealed with Nitoseal MS600.

## THE HIGHLIGHTS

- > Nitodek FS Wearcoat walkways
- > Termination detail using Nitoseal MS600
- > Concrete prepared for Renderoc HB45 repairs



# WASTEWATER TREATMENT PLANT

County Donegal | AQL | October 2023

## THE PROBLEM

The Wastewater Treatment Plant (WWTP) at County Donegal in Ireland is one of a number of water treatment facilities undergoing routine maintenance and repair works. Irish Water appointed specialist surface coatings contractor Adrian Queally Ltd (AQL) to carry out the work, who contacted Fosroc for product specification advice and material supply. Fosroc has a long-standing working relationship with AQL, with Fosroc products having been used on several other similar projects in Ireland. At this site, the existing failsafe bund around the Sulphuric Acid tank required diamond grinding of bunds' inner surfaces, followed by a suitable coating to infill blowholes & smooth out rough surfaces. It was essential that the finished repair work was able to withstand corrosion from this specific chemical, should a leak occur.

## THE BENEFITS

The proposed solution provided excellent chemical resistance of the finish coat, whilst also being very cost-effective for the client.

The project was completed successfully and to the agreed schedule.

## THE SOLUTION

Products used...

- > Renderoc ST05
- > Renderoc HB45
- > Nitocote EN901

At the County Donegal Wastewater Treatment Plant (WWTP) in Ireland, a crucial maintenance project was undertaken to enhance the resilience and durability of the Sulphuric Acid tank bund. Fosroc was brought in to provide expert advice on product specifications and supply, leveraging their extensive experience with similar projects in Ireland.

The project began with the diamond grinding of the bund's inner surfaces to remove imperfections and prepare the surface for further treatment. Following this, Renderoc ST05 was applied to efficiently infill blowholes and create a uniform surface. To achieve a smooth, even finish, Renderoc HB45 was meticulously hand-applied. The final step involved the application of Nitocote EN901, a protective coating specifically chosen for its excellent chemical resistance. This topcoat was designed to create a robust barrier capable of withstanding potential corrosive exposure from Sulphuric Acid, ensuring the long-term integrity of the structure.

## THE HIGHLIGHTS

- > WWTP required repair and coating to protect from potential corrosive leaks.
- > Preparation completed prior to repairs and coating
- > Finished with Nitocote EN901 protective coating



## Head Office

Drayton Manor Business Park, Coleshill Road, Tamworth, Staffordshire, B78 3XN, United Kingdom | +44 (0) 1827 262222 | enquiryuk@fosroc.com

## Ireland Office

Miesian Plaza, Lower Baggot Street, Dublin 2, D02 Y754, Ireland | +353 (01) 9131024 | enquiry.ireland@fosroc.com

