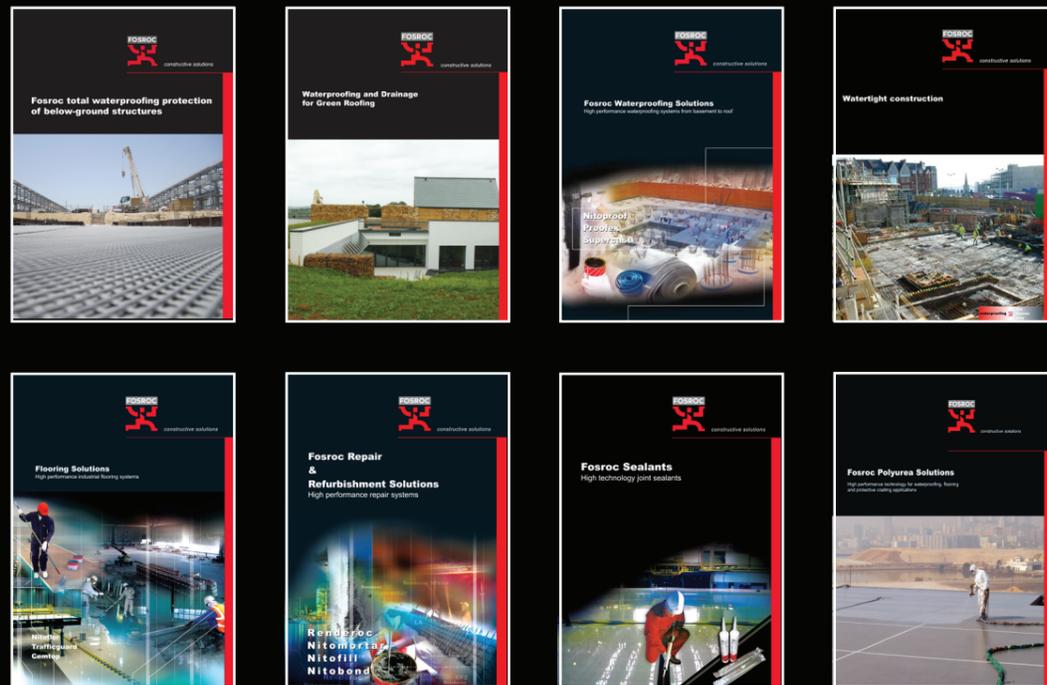


www.fosroc.com

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



Fosroc Waterproofing Solutions for Balconies, Walkways and Flat Roofs



Details of your local Fosroc office can be found at www.fosroc.com

Important Note

Fosroc products are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, copies of which may be obtained on request. Whilst Fosroc endeavours to ensure that any advice, recommendation, specification or information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products, whether or not in accordance with any advice, specification, recommendation or information given by it.



Our profile

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 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. For details of your local offices, please refer to www.fosroc.com.

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.

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



how we can help you

Fosroc have a long history of working together with clients, consultants and contractors on projects all over the world. Presentations, seminars and project demonstrations, along with project specific specifications, technical assistance, method statements and warranties can be provided to ensure the best project solution can be selected. Please contact your local Fosroc office for more details.

- Seminars
- Project specifications
- CAD details
- Site support



Fosroc total protection solutions

Fosroc offer a full range of compatible waterproofing systems, concrete repair mortars, protective coatings, carbon fibre structural strengthening, crack injection resins, resin grouts and anchors and joint sealant products.

- **Nitoproof**
Hand-applied waterproofing systems
- **Fosroc Polyurea**
Spray-applied waterproofing system
- **Renderoc**
Concrete repair mortars
- **Dekguard**
Anti-carbonation coatings
- **Nitowrap/Nitoplate**
Carbon-fibre strengthening
- **Nitofill**
Crack-injection resin
- **Nitoseal**
Elastomeric joint sealants
- **Conbextra**
Cementitious and epoxy grouts
- **Lokfix**
Polyester resin anchor grout

Fosroc provides solutions not only in the initial construction of durable and sustainable structures, but throughout the life of a building with our wide range of options for long term repair and protection. Combined with Fosroc's excellent technical assistance and customer service, and backed by BSI Accreditation, this makes Fosroc the supplier of choice for balcony, walkway and flat roof waterproofing and protection.



balconies
walkways
flat roofs



Balconies & walkways

External public access balconies form an integral part of multi-storey housing structures in many cities, while private balconies are often a feature of luxury apartment flats, particularly in coastal regions.

The Problem

Balconies and walkways are usually constructed as concrete cantilevered extensions of the floor slabs over the structural walls. Their external location leaves them vulnerable to high thermal changes which when combined with rainfall leads to movement and cracking and subsequent freeze-thaw cycling resulting in damaged concrete.

The problem is further exacerbated by ingress of chemicals caused by acid-rain, rotting leaves, cleaning agents and de-icing salts which are used in cold weather. These areas can become unsightly if not repaired and present both a danger to the structural integrity of the building and the health and safety of the occupants.

The Fosroc Solution

Fosroc has developed a high performance liquid, hand-applied, modified polyurethane coating system, providing protection both to new balconies and walkways and also repairs carried out on existing ones. The result is a cost-effective finish that is waterproof, durable, decorative and easily maintained and with safety in mind, the coating is also slip and fire resistant.



System Selection

Nitoproof 800 system (up to 10 years warranty)

Nitoprime UR FS
1 coat of Nitoproof 800
Quartz sand broadcast
1 coat of Nitoproof UVR Topcoat

- Seamless waterproofing system
- Good crack bridging ability
- Chemically resistant and waterproof – good resistance to a wide range of chemicals
- Durable – high abrasion and wear resistance
- Slip resistant
- Easy to clean and maintain
- UV and weather resistant
- Attractive – available in a wide range of colours
- BS476 Pt3 EXT. F. AA fire rating



Flat roofs

In modern construction, an increasing number of buildings are being designed with flat roofs to maximise the usable space provided inside, with air-conditioning and other service equipment being located outside on the roof.

The Problem

Flat roofs are constantly exposed to the aggressive effects of external weathering and can accumulate ponding water as a result of their inefficiency in quickly shedding water during heavy rainfall or snow melt. Structures located in coastal areas are even more vulnerable to deterioration due to the effects of chloride and moisture in the marine environment.

These factors can lead to cracking and damage of the waterproofing system and subsequent water penetration and loss of concrete integrity. If sheet waterproofing membrane systems are used then these can be difficult to detail around the penetrations and upstands commonly found on flat roofs. With roof areas often not being easily accessible, a robust and low maintenance solution is also an important consideration.

The Fosroc Solution

Fosroc's range of liquid, hand and spray-applied systems have been designed to provide a high level of protection to new flat roofs and for the repair of existing ones. These seamless waterproofing systems have the benefit of being easily applied, even at awkward junctions, ensuring an extremely durable, waterproof finish. This ease of application means these systems can be quickly installed, making a rapid return to service achievable and with only low maintenance required, makes them a cost-effective solution.



System Selection

Nitoproof 800 system (up to 10 years warranty)

Nitoprime UR FS
1 coat of Nitoproof 800
Quartz sand broadcast if required
1 coat of Nitoproof UVR Topcoat

Polyurea system (up to 10 years warranty)

Fosroc Primer 195
1 coat of Fosroc Polyurea WPE
Quartz sand broadcast if required

- Seamless waterproofing system
- Good crack bridging ability
- Chemically resistant and waterproof – good resistance to a wide range of chemicals
- Durable – high abrasion and wear resistance
- Slip resistant
- Easy to clean and maintain
- UV and weather resistant
- Attractive – available in a wide range of colours
- BS476 Pt3 EXT. F. AA fire rating



Beige Signal Grey Mouse Grey May Green Signal Yellow Traffic Blue

Standard colours for the Nitoproof 800 system



Case study

The project

The balcony walkways of some coastal apartment blocks in Whitby required refurbishment due to the effects of environmental damage, causing spalling and cracks in the concrete.

The challenge

The concrete in the structure had deteriorated due to corrosion caused by water penetration attacking steel reinforcement causing cracking and spalling in the balconies, which was made worse due to the harsh marine environment. To ensure the integrity of the structure a durable solution was required that was waterproof, to protect the concrete from future attack.

The main issue regarding the balcony coating system was the restricted entry / exits points for the flats where one balcony serviced the flats on each level, requiring the work to be completed quickly, causing minimum disruption to the residents.

The Solution

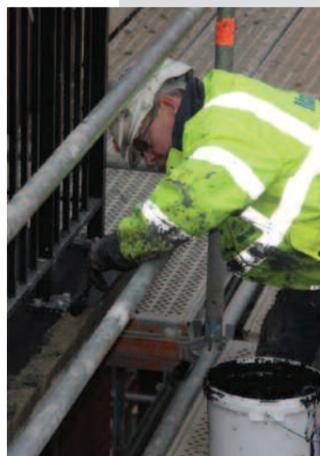
In conjunction with Fosroc's Renderoc Repair and Dekguard anti-carbonation coating systems, Fosroc proposed the Nitoproof 800 System, which is a flexible, slip resistant liquid waterproofing, ideally suited for coating exposed concrete elements such as balconies. The system is also fire rated which is of particular importance for apartment blocks, such as the ones in Whitby where the balcony walkways provide the only access and escape routes.

A rapid return to service could be achieved due to the ease of application and rapid curing of the Nitoproof 800 system.

Product application

The Fosroc Nitoproof 800 system is 1.4mm thick comprising one coat of Fosroc Nitoproof 800 Membrane and one coat of Fosroc Nitoproof UVR Topcoat. Due to the poor quality of the balcony substrate this was primed initially using Nitoprime UR FS, then broadcast with Nitoflor FC anti-slip grains.

Once the primer was tack free, the Nitoproof 800 membrane was applied by trowel and back rolled to produce a textured surface. Nitoflor FC anti-slip grains were then broadcast onto the wet Nitoproof 800. A brush was used to cut into the handrail base plate and edges of the balcony (see right).

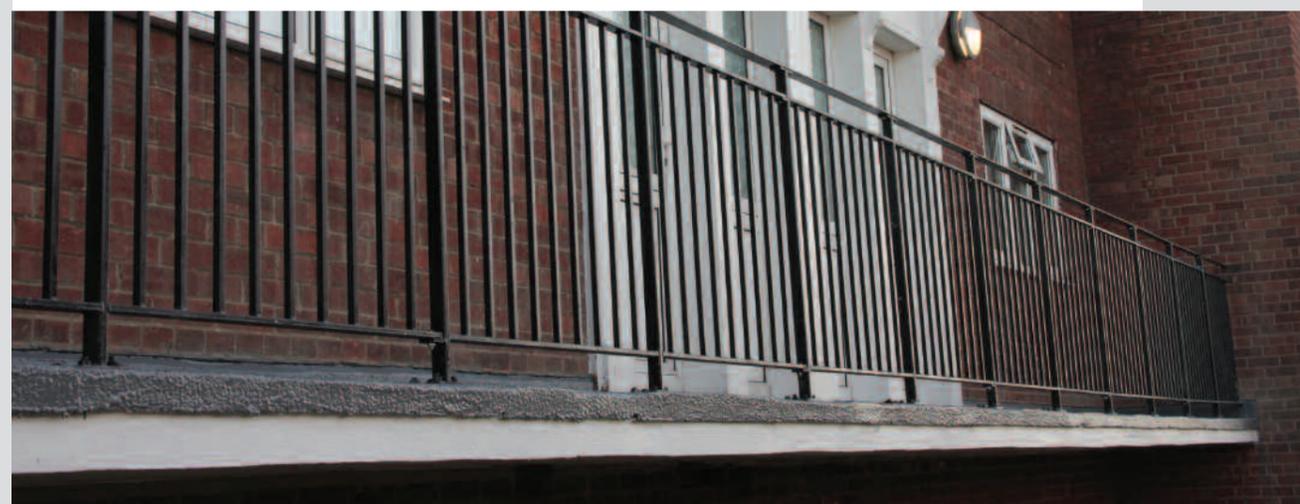
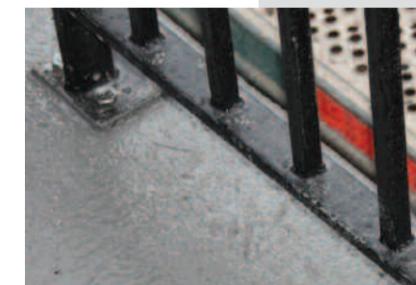
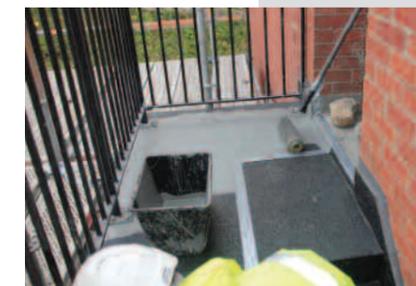


The following day Nitoproof UVR Topcoat was applied by roller at the recommended wet film thickness of 0.3mm (see right). 20 hours after application, it was possible to walk on the Nitoproof UVR Topcoat.

The results

During the project, residents were asked to leave or stay in their properties between the times of 8am - 4pm and the Nitoproof 800 system enabled the work to be completed during this tight programme. It was possible to adhere to this time scale because the rapid curing times were still achieved despite the project running through the cold winter months.

Nitoproof 800 provides an attractive and seamless, slip-resistant finish making it a safe surface to walk on. At the same time its abrasion and wear resistance will make the balconies easy to maintain for years to come.



All the products featured in this brochure are available either direct from Fosroc or from one of our specialist construction chemical distributors.

If you require further information on any of our products, please contact us:

Tel: **01827 262222**
Fax: **01827 262444**
email: **enquiryuk@fosroc.com**

Alternatively, up-to-date technical information is available on our website at:

www.fosroc.com

up to date technical information

