Fosroc Sealants

Nitoseal MS

www.fosroc.com

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, 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 DELIVER SOLUTIONS NOT JUST PRODUCTS

CAD Details

A library of standard CAD details are 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.

Leader in delivering
Constructive Solutions
Worldwide!

Fosroc provided a wide range of concrete repair solutions during the extensive refurbishment of the Royal Mail's Mount Pleasant site in London UK. A substantial part of the 12 acre Royal Mail sorting office building has been transformed into residential flats requiring extensive structural repair work both to floors and facades.

Repairs to the main external façade of the building necessitated the removal of all the existing render back to a sound substrate. Renderoc HB, a high build mortar designed for vertical repairs was applied to make good the façade. The entire surface was then levelled using Renderoc FC fairing coat, applied in 2 x 1mm layers, before applying Dekguard E2000 as a protective and decorative finish. The Dekguard coating was supplied in a made-to-order RAL colour.

Finally, the façade joints were sealed with Nitoseal MS100 high performance MS Polymer sealant giving a long lasting weather-proof UV resistant seal

FOSROC
SEALANT SOLUTIONS

Fosroc's vast experience in providing constructive solutions to many famous building structures around the world has been built on a broad portfolio of products. These include waterproof membranes, waterstops, joint sealants, concrete repair mortars, resin flooring, protective coatings, structural strengthening, grouts and concrete admixtures manufactured to the highest quality standards backed by independent test certificates.

At Fosroc we recommend the best technology for each product rather than being driven by one particular response. We liaise and evaluate with our customers the most appropriate solution for what they are trying to achieve. We just want to deliver what is best to the customer providing peer to peer based solutions for engineering problems to ultimately find a number of ways to create value.

For over 60 years Fosroc has been successfully supplying joint sealants to many iconic buildings and structures around the world including Wembley Football Stadium, Hong Kong airport and many oil/gas / petrochemical sites in the Middle East

SEALANTS

A brief explanation

Joints occur in a structure for a number of reasons ie. day joints, natural barriers in construction (damp courses, transitions from brick to blockwork), around window frames and where gaps are designed to accommodate thermal movement and settlement of the foundations. To prevent cracks from appearing joints need proper consideration when designing a building. Any joint that may be penetrated by wind, dirt, water or vapour will need to be sealed with a joint sealant.

Things to consider when designing a joint:

- What is the purpose of the joint?
- What does the joint have to retain or keep out?
- How much movement will the sealant experience?
- What must the sealant withstand?
- How will the sealant be applied?
- How long is it to last?
- How accessible is it for maintenance purposes?

FOSROC sealant experience

Joint sealants are used in most types of structures - from housing, offices, stadia, industrial buildings and airports, to bridges, roads, power stations and reservoirs. They enable the relative movement of the structure's components and prevent the ingress of water, wind or chemicals and also fire transmission. With such a wide range of applications many factors have to be taken into consideration when specifying a sealant to provide an effective and durable solution.

Fosroc's years of experience in sealant technology have led to the development of a wide range of products so we can offer you the best solution for your application, designed to meet the requirements of BS EN ISO11600. This world-wide standard classifies building construction sealants according to their performance characteristics such as movement accommodation, elasticity and modulus and is supported by BS6093 and BS6213 codes of practice for designing joints in building construction.

Our technical staff can advise you on the appropriate choice of sealant, whatever the situation in line with these current standards, while our Joint Sealant CPD seminars can help you understand all aspects of good joint design.

Design Considerations

There are 2 main factors to take into account when selecting a joint sealant:

1. Width / Depth ratio
Generally the accepted width:depth ratio for a good joint sealant performance will fall between 1:1 and 2:1.
2:1 is the optimum to aim for with façade joints
1:1 is for trafficked/hydrostatic joints

2. Movement Accommodation Factor
The MAF is an important sealant property when specifying a sealant: it allows the joint dimensions to be calculated.

The Movement Accommodation Factor (MAF) is the movement range that the sealant will accommodate. MAF is expressed as a percentage of the minimum design joint width.

A sealant with a 25% MAF in a 20mm wide joint will have a movement capacity of 5mm.

Summary of movement calculations
In order to ensure the correct choice of sealant, a designer must perform the following calculations:

> Calculate maximum potential movement in the structure from all sources.
> Decide the location of movement joints.
> Select a possible sealant and from its MAF calculate minimum theoretical joint width.
> Calculate the minimum theoretical joint width

If the joint is too wide reconsider sealants with a higher MAF or relocate joints closer together.

Other considerations

> Will staining be a problem?
> Will the sealant be immersed in water?
> Are joints to be fire-rated?
> What is the sealant's environment - ie UV exposure, fuel/ chemical contact, trafficked?
> Joint faces should be parallel.
> Sealant should not be allowed to bond to the base.

NITOSEAL MS POLYMER SEALANTS

Fosroc have formulated a range of joint sealants based upon latest hybrid silyl modified polyether technology. These sealants provide tough, high performing durable solutions suitable for use over a wide range of external and internal applications.

These premium construction sealants utilising MS Polymer technology not only have an established worldwide track record but provide a cost-effective solution with many benefits;

- Damp tolerant during application
- 1 component packaging
- Primerless adhesion for most applications
- Excellent UV resistance
- Isocyanate free – environment friendly
- Acoustic sound ratings
- Consistent gunnability across a wide temperature range
- Compatible with residual contamination from PU, PS and silicone

Fosroc manufacture their Nitoseal MS sealant range under ISO 9001, the finished products are CE Marked and are compliant with industry standards. Products are packaged in 600ml sausages and 380ml tubes

NITOSEAL MS RANGE

NITOSEAL MS60

> General purpose building sealant
> 25% MAF
> EN 15651-1
> EN 140-3 Acoustic rating
> ISO 11600 F25LM
> ASTM C920 Type S, Grade NS, Class 25

NITOSEAL MS100

> Façade sealant, non staining of marble and stone
> 50% MAF
> EN 15651-1
> EN 140-3 Acoustic rating
> ISO 11600 F25LM
> ASTM C920 Type S, Grade NS, Class 25

NITOSEAL MS300

> Floor sealant, non staining of marble and stone
> 25% MAF
> EN 14188-2
> EN 140-3 Acoustic rating
> ISO 11600 F25HM
> ASTM C920 Type S, Grade NS, Class 25

NITOSEAL MS600

> WRAS approved potable water sealant for immersed conditions in clean or dirty water
> 25% MAF
> EN 14188-2
> BS 6920 Part1
> ISO 11600 F25HM
> ASTM C920 Type S, Grade NS, Class 25

FOSROC SEALANTS

Fosroc have been providing joint sealant solutions to the construction industry for over 60 years, many iconic buildings around the world such as the Royal Grandstand at Ascot Racecourse and the Holy Mosque in Madinah have been sealed using Fosroc products.

In addition to the Nitoseal MS range of sealants, Fosroc also supply a wide range of 2K sealant systems mainly for Engineering type projects. These products are manufactured in several Fosroc locations and utilise Polyurethane and Polysulfide technologies.

Thioflex 600 Polysulfide sealant has been the benchmark solution for general sealant applications since it first was launched back in 1959, with many millions of litres sold throughout the world.

During 2016 Fosroc launched a new pavement sealant, Thioflex 555, specifically targeted for airport joint sealing. This new innovative product has rapid return to service benefits meaning many more metres of airport joints can be sealed in less time which is crucial for maximising airport closure slots. Thioflex 555 is BS 5212, US FED SPEC SS-S-200E and EN 14188-2 compliant and has already been used in many projects since launch.

For the complete sealant range from Fosroc visit www.fosroc.com

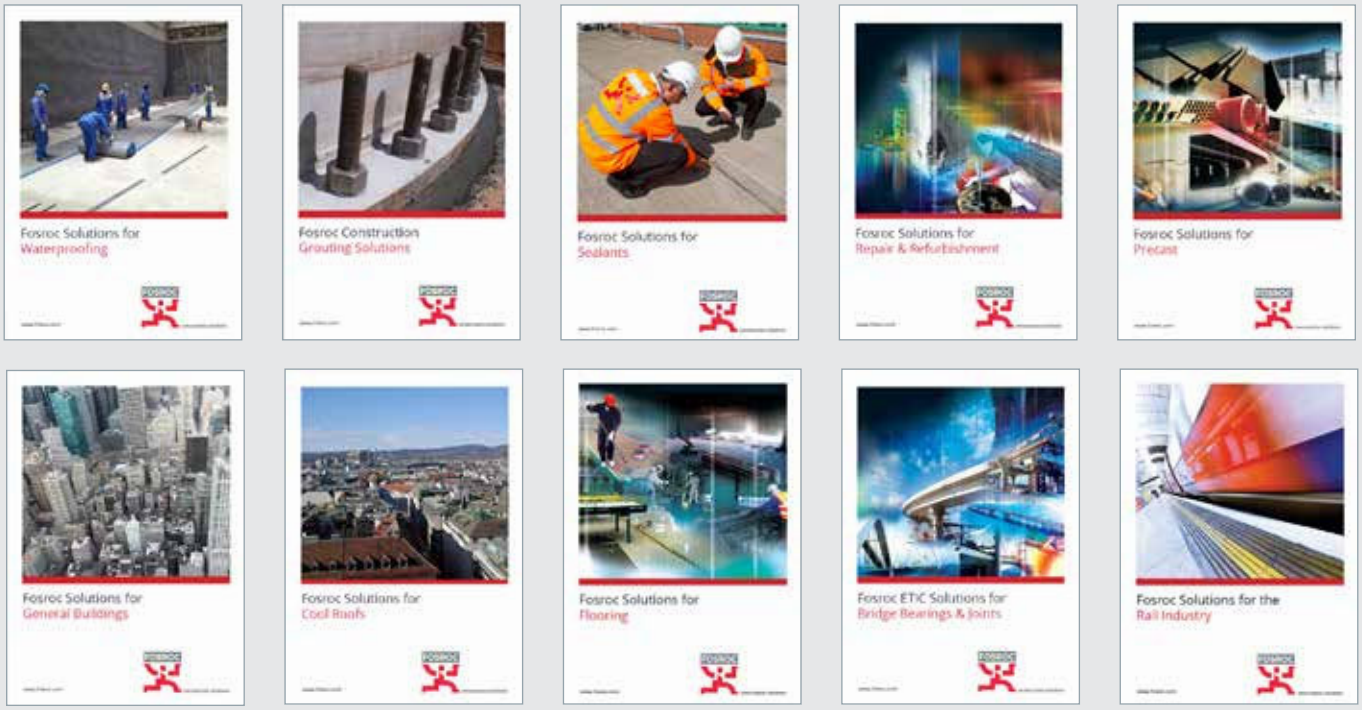
Specification Service
Fosroc offer direct assistance with specifications for individual projects ensuring the correct choice of joint sealant is made

On-site support
Fosroc has a reputation for quality and expertise, locally based specification and sales managers are on hand to visit your project to help solve problems and find solutions

NITOSEAL MS SEALANT SELECTOR

	MS60 25% MAF	MS100 50% MAF	MS300 25% MAF	MS600 25% MAF
General civils				✓
Water tanks, reservoirs				✓
Sewage treatment works				✓
Basements				✓
Subways				✓
Elevated decks			✓	
Trafficked joints			✓	
Concrete pavements			✓	
Floors			✓	
Cladding & curtain walling		✓		
Non-staining facade applications		✓		
Windows & doors	✓			
Perimeter floor joints	✓			
Brick, concrete walls	✓			

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



Details of your local Fosroc office can be found at
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