



# Fosroc Sealant Solutions for Airports

[www.fosroc.com](http://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 AIRPORT EXPERTISE

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

At Fosroc we recommend the best technology for each project 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.

Fosroc have successfully supplied products to many airports including London, Singapore, Hong Kong, Dubai and Thailand.



# APRONS AND TAXIWAYS

Most international airports across the world are extremely busy with an ever increasing number of flights taking-off and landing. Each aircraft must find a place to stand while on the ground and by far the most common method is by parking the aircraft adjacent to the terminal building with direct access for transferring the passengers. Most airports also have wide open hardstanding space where additional aircraft can be parked and the passengers bussed off the aircraft to the terminal.

Modern wide-bodied aircraft are large, a typical Boeing 777-200 series is over 63m long with a wingspan of over 60m. This means that when parked on stand it requires a ground space of approximately 140m x 70m allowing for a similar aircraft to pass behind it to park at another stand. Each space therefore can equate to >3,000m of joint sealant to seal the high quality pavement concrete panels.

## RAPID CURING JOINT SEALANT

For maintenance re-sealing projects the aim is to carry out the required work as quickly as possible to get the stands/ taxiways back into operation, saving time and money. This work is usually carried out during night closures and time slots are restricted. With this in mind Fosroc have developed a new joint sealant, **Fosroc Thioflex 555**, that will cure in an hour allowing many more sealant metres to be applied during a standard closure slot. This new sealant can typically achieve 4 times the sealant productivity of traditional longer cure sealants.

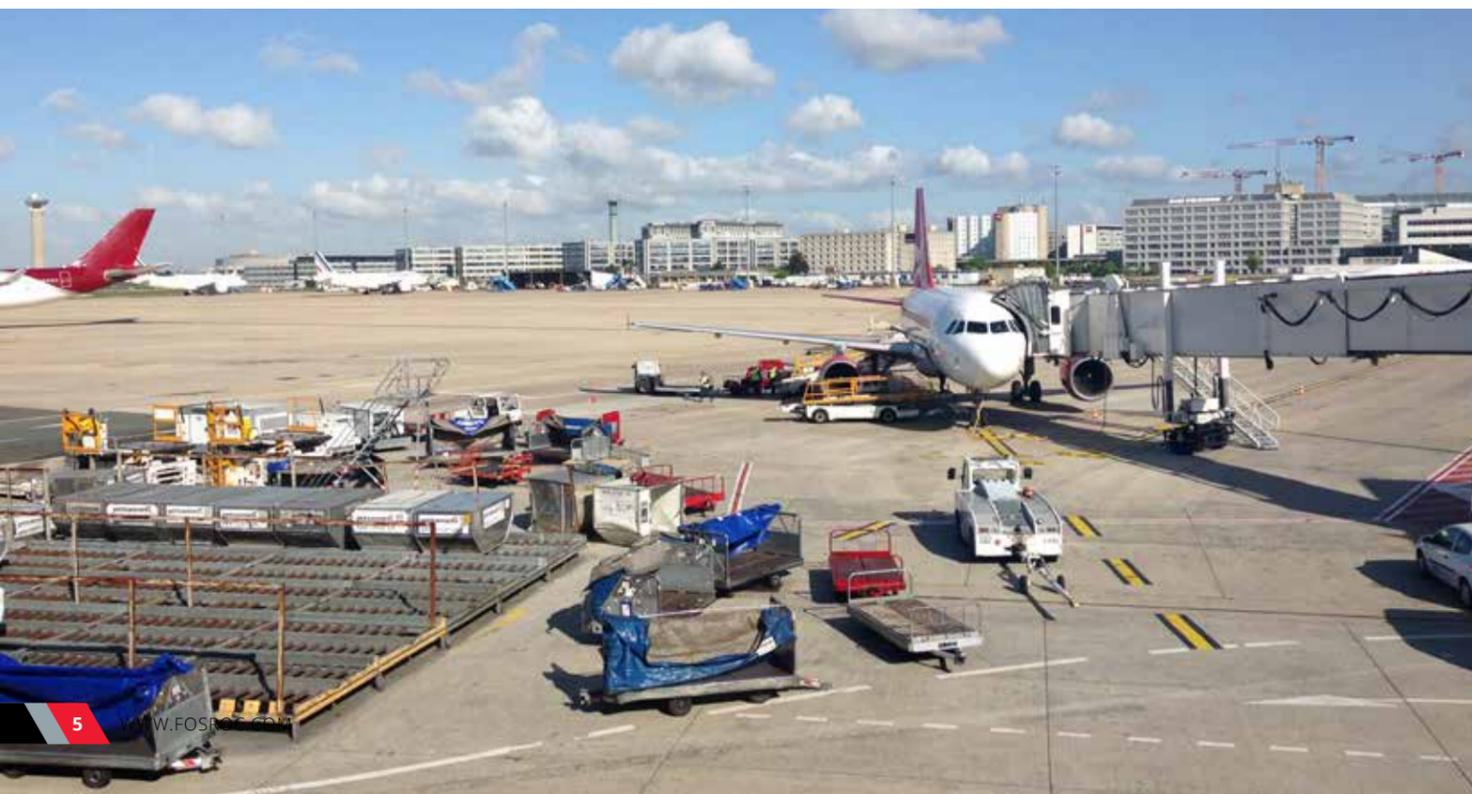
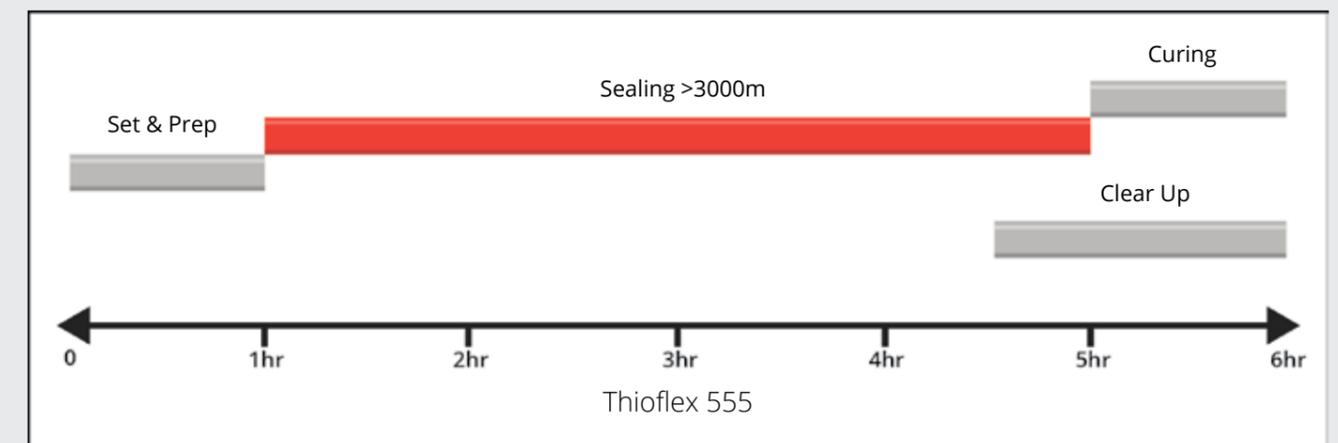
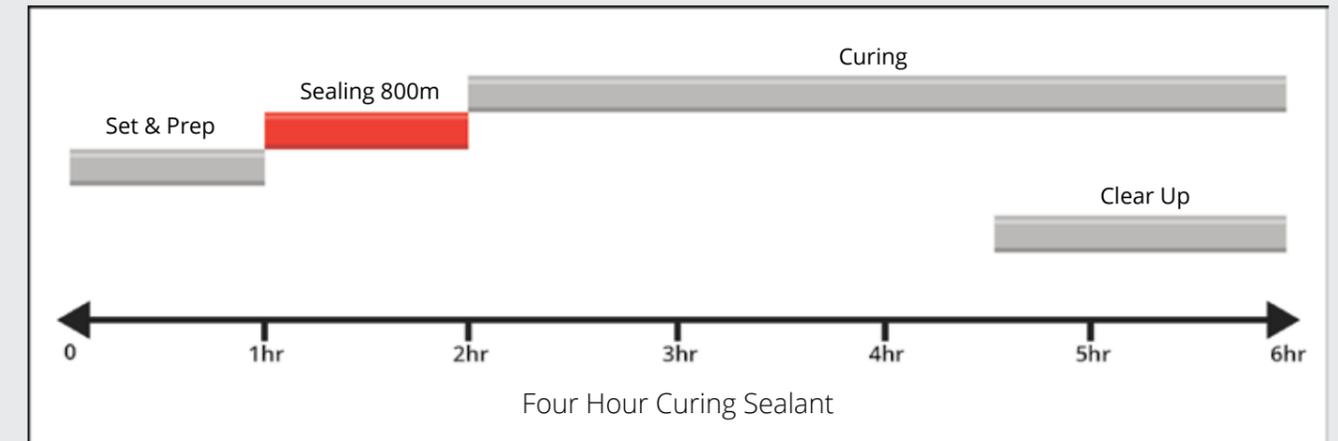
Fosroc Thioflex 555 is based on the company's tried and tested Polysulfide technology which has been used across the world for over 50 years. It's CE Marked to EN14188-2 and certified to BS 5212. Manufactured by Fosroc to ISO 9001 standard.

## THIOFLEX 555 BENEFITS

Feature	Benefit
Fast Curing	Rapid return to service saving time and money - more sealant metres in less time
EN14188-2 compliance	Assurance of compliance with relevant standards
Resistant to chemicals commonly found at airports	Long term durability in airport environment
Stress relaxes, reduction in tension at bond face	Gives sealant a longer service life
Proven polysulfide technology	Peace of mind, long track record
Two-coloured base/hardner	Clear guide for consistent mixing
Compatible with Fosroc joint filler boards	Full system from one supplier for continuity of assurance
Low GHS hazard product labelling	Safe product in use

# THIOFLEX 555 UP TO FOUR TIMES MORE PRODUCTIVE

The graph below shows how Thioflex 555 can seal many more metres than other types of sealants. The figures are based on sealing 15mm x 15mm joints during a typical 6 hour airport closure.



## DURABILITY TESTING TO EN14188-2

By carefully selecting the best raw materials, Fosroc have formulated Thioflex 555 to achieve outstanding long term durability throughout a wide range of climatic conditions.

One evidence of this high performance can clearly be seen in the photograph. Thioflex 555, when fully tested for Resistance to Hydrolysis as determined by EN14188-2 Specification for Cold-Applied Joint Sealants, which subjects the sealant to 70°C and 100% humidity for 14 days, exceeds the EN test requirement.



# FOSROC'S AIRPORT SEALING EXPERIENCE

Fosroc's track record for supplying joint sealants to airport projects across the world stretches over 30 years and includes many large international airports such as London Heathrow & Gatwick, Hong Kong, Singapore, Thailand and Korea.

Fosroc are an ideal choice for the airport sector combining their extensive range of concrete repair mortars, joint filler boards, joint sealants, waterproofing membranes, admixtures, grouts and flooring resins with their expert advice from local teams of technical sales and specification.

One such prestigious project was the new London Heathrow Queens Terminal 2 marking the latest phase of an \$15 billion private sector investment transforming the airport for passengers. Terminal 2 successfully

welcomed its first passengers on 4 June 2014 and will eventually be home to 26 airlines with 332 daily flights to 54 global destinations.

The project which included 14 aircraft stands and two taxiways constructed in concrete, required 66,000 metres of movement joints. A joint sealant solution was required which could provide high chemical resistance, resilience and durability to cope with an extremely tough environment. Rapid installation and low maintenance were further considerations.

Fosroc joint sealants were selected due to their resistance to all fuel types including aviation fuel, oil and hydraulic fluids along with their high durability and high movement accommodation.



Fosroc Thioflex 555 being applied by machine at Dublin Airport during a night closure of the apron areas.



Fosroc Thioflex 555 rapid return to service joint sealant can be machine-applied to facilitate the best possible application rates. Parts A and B, in a 1:1 ratio, are fed along hoses to static mixers contained in the application lance, whereupon the finished product is mixed and delivered into the joint slot quickly and efficiently.

Fosroc Thioflex 555 is also available as a slower setting hand grade, in 5 litre cans. Parts A and B are mixed using a slow-speed drill and paddle then the finished product is poured into the joint slot.

Aprons and taxiways are constantly being trafficked by aircraft and ground vehicles. The pavement quality concrete bay sizes vary but usually are in the range of 6m x 6m resulting in potentially tens of thousands of linear metres of joint sealant.

Contact your local Fosroc office for specialist advice and assistance to help you select the best solution for your airport sealing project.



# Fosroc Airport Solutions

Fosroc have a long history of supplying products to the airport sector. One such example is Proofex Engage, a premium pre-applied waterproofing system, which has recently been installed protecting 70,000m<sup>2</sup> of the below-ground structure of the Jet Propulsion Centre at Jeddah International Airport.

Fosroc's Nitoflor resin flooring and Nitoseal joint sealant systems can be found in many airport hangars across the world providing long term durability and clean environments for essential aircraft maintenance. Fosroc's extensive Renderoc concrete repair and Dekguard coating ranges are an ideal solution for multi-storey car park structure protection.

System Type	Example of Application use	Fosroc Product
Elastomeric joint sealant	Aprons and taxiway joints	<b>Thioflex 555, Colpor 200</b>
Joint filler board	Aprons and taxiway joints	<b>Hydrocell XL, Fibreboard</b>
Concrete repair mortar	Concrete slabs and joint arises	<b>Renderoc range</b>
Below-ground waterproofing	Terminal building basements	<b>Proofex membranes and Supercast waterstops</b>
Above-ground waterproofing	Terminal building roofs and podiums	<b>Proofex TPO membranes, Polyurea WPE</b>
Deck waterproofing	Car parks	<b>Nitodek range</b>
Protective coatings	Terminal building facades and car parks	<b>Dekguard range</b>
Resin flooring	Aircraft hangars	<b>Nitoflor range</b>
Admixtures	All insitu and precast concrete	<b>Aura, Structuro and Conplast ranges</b>



## Sharjah Airport UAE

The use of Fosroc's Nitoflor SL2000 provided a durable 2mm thick epoxy resin based flooring with a glossy finish for the state-of-the-art hangar at Sharjah International Airport.



## Hyderabad Airport India

Fosroc provided an array of solutions to provide a durable, easily cleaned and high build coating in two of Hyderabad airport hangars. Nitoflor 145 provides a high level of resistance with an excellent attractive finish.



## Heathrow Airport UK

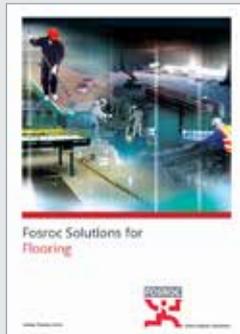
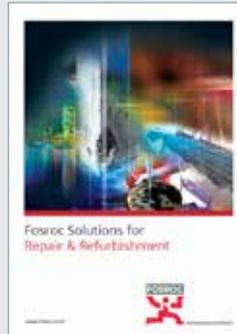
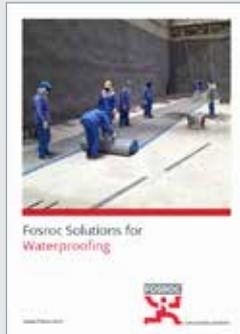
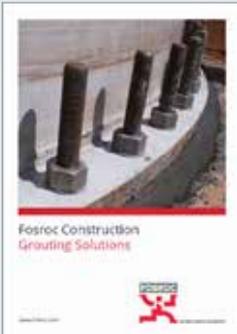
Fosroc Nitoseal PU888 was selected as the joint sealant at Heathrow Airport due to its resistance to all fuel types including aviation fuel, oil and hydraulic fluids along with its high durability and high movement accommodation.



## KAIA Airport Saudi Arabia

A range of Fosroc solutions helped King Abdulaziz International Airport (KAIA) in Jeddah to achieve a LEED (Leadership in Energy and Environmental Design) Silver rating.

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



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