

CASE STUDY

Cardiff Air Ambulance Removal & Replacement of Joint Sealant



PROJECT DETAILS

The project involved critical maintenance and repair works to ensure the durability and safety of the pavement quality (PQ) slabs at the heliport. The scope of works included:

- Removal and Replacement of Defective Joint Sealant: Approximately 1,600 linear meters of existing defective PQ joint sealant were removed and resealed using Thioflex 555, a high-performance joint sealant.
- Pavement Crack Sealing: Hand sawing and sealing of approximately 400 linear meters of pavement cracking were carried out to prevent further degradation.
- Concrete Repairs: Minor concrete repairs were performed to eliminate the risk of Foreign Object Debris (FOD) that could impact aircraft operations.

To maximize the efficiency and quality of the works, a strict operational window was implemented. Aircraft operating from the heliport had to vacate the site by 08:00 AM and were restricted from returning until after 18:00 PM. This allowed the project team to carry out the works without disruption and ensure a high-quality finish when installing the new sealant.

PROJECT DETAILS

Project Name: Cardiff Air Ambulance Sealant Replacement

Location: Resapol London

Start Date: October 2024

End Date: Within 7 shifts

Contractor: Concrete Sealing Ltd

Product Requirements

- Rapid setting
- High durability
- Comply to industry specific regulations and standards

Product Solution

- A rapid setting, high early strength repair concrete
- The high performance exhibits a fast development of physical properties allowing early return to service

The project was completed in 7 shifts, working around the weather to ensure that the sealant was installed on days when the weather was dry.

By resealing all joints and cracks within the PQ slabs, the surface was rendered watertight. This measure is crucial for preserving the overall integrity and performance of the system, as it mitigates the risk of water infiltration that can lead to structural damage.

Furthermore, the project underscores the importance of regular maintenance and proactive inspections. Addressing potential issues early helps prevent escalation, extends the lifespan of PQ sealed joints, and reduces the need for frequent replacements and associated costs. This approach not only enhances the long-term performance of the pavement but also ensures operational reliability for heliport users.



PRODUCT IN FOCUS

FOSROC THIOFLEX 555

HIGH PERFORMANCE, ELASTOMERIC, PAVEMENT JOINT SEALANT



Thioflex 555 is a two component, polysulfide self-levelling type sealant product designed to meet requirements in pavement applications.

The product retains its movement accommodation of 35% on butt joints throughout temperature extremes. It does not harden in cold weather nor become excessively soft in hot conditions.

Product Uses

Polysulfide sealant for the sealing and maintenance of joints in concrete roads, concrete runways and hard standings. Particularly suitable for sealing areas where fuel spillage might occur such as aircraft fuelling areas, oil terminals, garage forecourts, parking and cargo areas. Available in machine grade (ultra-fast setting) and hand grade (fast setting).

Product Benefits

- Meets key international standards
- Rapid return to service
- High extrusion rates
- Fuel & hydraulic fluid resistance
- Jet blast resistance
- High durability & long service life
- Resistance to stone / dirt pickup