

Project Profile - Buildings & Commercial Construction

PROJECT

**Norfolk & Norwich University
Hospital, Norwich**

SUMMARY

Waterproof, anti-corrosion treatment to Generator housings and resurfacing of service areas

PRODUCTS

**Metal Prime WB, Roofdex HB,
Cemprotec GFM 225, Cemprotec
E-Floor**

CLIENT

Serco

SPECIALIST CONTRACTOR

Prestec UK

BACKGROUND ►

The Norfolk and Norwich University Hospital is a 1,200 bed teaching hospital which provides care to a population of 825,000 from Norfolk, neighbouring counties and further afield. Annually the hospital treats over 90,000 inpatients and almost 700,000 outpatients. The hospital first opened in 2001 at a total cost of £1.16 billion and it was the first large PFI hospital scheme in the NHS.

The hospital has 40,000 light switches, 13,320 light fittings, 750 miles of electricity cable and 67 CCTV cameras, so the power requirements are huge. To ensure the hospital remains operational at all times, there are four 1.8 megawatt Generators which in an emergency are able to supply the entire hospital with power. Between them, the oil-fired Generators could keep the hospital powered at full load for as long as it takes the Electricity Board to reinstate supplies.

To ensure total weatherproof protection, the Generators are housed in steel units on the hospital roof. Due to the long-term effects of the weather and other pollutants, the steel units had deteriorated over the years with extensive rusting on the top surfaces. Flexcrete was consulted due to the company's experience of controlling corrosion with ferrous metals. In addition, the main concrete loading bay and service passageways required resurfacing with a hard-wearing material able to withstand heavy trafficking day and night.

THE SOLUTION ►

Flexcrete products were specified for the Generator housings, the loading bay and the service passageways which serve the entire hospital. Following preparation, the housings were primed with **Metal Prime WB**, a single pack, waterborne, anti-corrosion primer for metal and difficult to adhere to substrates. This was followed by two coats of **Roofdex HB** System 3, a 15 year, elastomeric, high build, water-based liquid roofing system. **Roofdex HB** is ideal for application in hospital environments, as it is completely solvent-free, environmentally friendly, virtually odourless and inherently safe to use. As no solvents are released during application, daily routines can continue as normal and there is absolutely no need for any ward closures. **Cemprotec GFM 225** premium grade glass reinforcing matt was embedded in specific detail areas.

The loading bay and service passageway areas were treated with **Cemprotec E-Floor**, an exceptionally hard-wearing, waterborne, epoxy and cementitious flooring system which is designed for the protection of concrete decks in the most demanding of internal and external environments. Applied at 2mm, **Cemprotec E-Floor** offers exceptional resistance to abrasion, water, impact, chloride ions and aggressive chemicals. Again, the water-based composition of **Cemprotec E-Floor** was a critical consideration for this project, as no hazardous solvents or heavy odour were released during application. **Cemprotec E-Floor** is CE Marked in accordance with the demands of BS EN 1504.



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Flexcrete Technologies Limited
Tomlinson Road • Leyland
Lancashire • United Kingdom
PR25 2DY

Tel: +44 (0) 845 260 7005 • Fax: +44 (0) 845 260 7006
Email: web@flexcrete.com • Web: www.flexcrete.com

