

## Project Profile - Civil Engineering & Infrastructure

### PROJECT

**Chester Road Rail Bridge,  
Manchester**

### SUMMARY

Cementitious waterproofing and aesthetic finish with Monodex Smooth covering an area spanning over 160m<sup>2</sup>

### PRODUCTS

**Cemprotec E942**  
**Cemprotec 2000-S**  
**Cemprotec Elastic**  
**Bond-Prime**  
**Monodex Smooth**

### CLIENT

Sisk Rail

### DESIGN ENGINEER

Tony Gee & Partners

### CONTRACTOR

E & P Painting Contractors Ltd

### BACKGROUND ►

**Chester Road Rail Bridge passes the main road near Deansgate Station in Manchester. A prominent landmark in the city centre, the bridge allows trains to enter Deansgate Station which was first opened in 1849. Several regional trains stop at Deansgate Station before going on to the larger Manchester Piccadilly or Oxford Road stations.**

The bridge is of cast iron construction and inspections revealed that there were blisters, holes and leaking areas in the deck waterproofing and particularly around the bolt holes. A long-lasting waterproofing solution was required to prevent rust and oil contaminated water dripping onto vehicles. In order that there was absolutely no disruption to daily rail traffic, repairs had to be carried out from the underside of the bridge. As this is such a distinctive structure leading into Manchester city centre, it was important that the bridge had an attractive, decorative finish upon completion. The repair and protection system also had to be elastomeric in formulation, allowing for structural movement.

### THE SOLUTION ►

A bespoke Flexcrete system was specified by Tony Gee & Partners for this project. Following thorough preparation, a 1mm thick stripe coat of **Cemprotec E942** was first applied; **E942** is a self-priming, epoxy and polymer modified cementitious coating with excellent resistance to water, chloride ions, oxygen and chemicals. **Cemprotec 2000-S** waterproofing sealing tape was then embedded into the **E942** to provide a highly flexible, impermeable seal prior to the application of two 1mm coats of **Cemprotec Elastic**, an elastomeric, cementitious modified coating. Ideal for waterproofing applications, **Cemprotec Elastic** is CE marked in accordance with BS EN 1504.

**Bond-Prime** was then applied before the application of two coats of **Monodex Smooth**, a high performance, breathable, water-based and waterproof coating with an aesthetic finish and an elastomeric nature, facilitating substrate movement. It is rapid drying and because it is water-based, no strong odours are released during application so there are no issues with it being applied in public areas. CE Marked in compliance with the demands of BS EN 1504, **Monodex Smooth** is available in a range of attractive colours and cream was chosen for this application to provide a light, bright finish.



FM 41091  
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OHS 597351

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Health & Safety

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