

Egginton Bridge

Case study

Focus products: Intercrete® 4804, Intercrete 4841

Location: Derbyshire, UK

Client: Derbyshire County Council

Summary: Repair and protection from chloride ingress and carbonation on a major trunk road bridge



Background

Egginton Bridge carries the A38 trunk road 200 metres above a flood plain.

A number of damaging factors - including carbonation, chloride attack and water ingress - had caused a series of defects on the main beams, cross beams and supporting pillars. This ultimately resulted in severe corrosion of the reinforcement, creating the need for refurbishment in the Winter of 1989-1990.

The solution

Intercrete 4804 was the high strength, waterproof repair mortar used. Its low sag characteristics allowed for easy application overhead in restricted spaces. The bridge was then protected from further chloride ingress with Intercrete 4841, restoring the original appearance and producing a waterproof, anti-carbonation finish. In January 2003, Mott MacDonald, in a full assessment, found that the coating **“has performed well and there is evidence that chloride ingress and carbonation have been prevented with a re-distribution of both chloride and alkalinity... Intercrete continues to provide an effective barrier to moisture, chloride ions and carbon dioxide.”**