

# Kingsway tunnel invert

Case study 2015

**Focus products:** Intercrete® 4802, Intercrete® 4840

**Location:** Liverpool

**Client:** Merseyside Passenger Transport Authority

**Summary:** Asbestos encapsulation  
between precast segments



## Background

The newest of the two road tunnels running beneath the River Mersey, the 2.2 kilometre long Kingsway dates from the early 1970's.

The tunnel bore is lined by precast concrete segments and the joints were sealed with a caulking material found to contain asbestos. With the passage of time, water ingress and general contamination had conspired to undermine the integrity, causing breakdown within the joint and the release of potentially harmful asbestos fibres into the invert which is the main source of ventilation. A system was needed which would be both effective and safe to use in the working environment.

## The solution

Working under strict safety conditions, the joints were raked out and reinstated with Intercrete 4802. Two coats of Intercrete 4840, reinforced with Cemprotect Scrim were then applied to seal the joint and lock in any residual fibres. The non-hazardous nature of both products was a crucial factor in the material selection process – Intercrete 4802 and 4840 are water-based, yet they can be applied to a damp substrate, forming a waterproof seal which is resistant to 10 bar.