

# PROVEN PERFORMANCE

*NETWORK RAIL W10 BRIDGEWORKS  
THE OPTIMUM HIGH EARLY STRENGTH CONCRETE*



**TOPROC**  
RAPID

**Product** Toproc Rapid 48HR  
**Client** Network RAIL  
**Main contractor** Network RAIL  
**Location** NETWORK RAIL W10 BRIDGEWORKS, ENDERBY  
**Date of completion** MAY 2011

## *A high early strength concrete allowing the opportunity to speed up the construction process and increase productivity.*

### THE CHALLENGE

For Network Rail, implementing a scheme to increase the height of all the bridges on the Nuneaton to Felixstowe line presented numerous challenges. For the bridge at Enderby, Leicestershire, it was necessary for the concrete support structure to have sufficient strength to take the load of the new bridge just seven days after the support section had been cast. Strength and setting time were therefore both key factors in the choice of concrete for the supporting lintels.

### OUR SOLUTION

Following consultations with the main contractor Galliford Try about the requirement for the high early strength concrete, Tarmac experts recommended the use of Toproc Rapid 48hr. For the Enderby bridge they also organised a backup plant with a duplicate mix using the same materials, as there was no room for error due to the finite rail possession. During one 24-hour period the old bridge was demolished and the new one slid into place.

### RESULTS AND BENEFITS

The required strength for the lintels was 50N/mm<sup>2</sup> at 48 hours and Tarmac's Toproc Rapid attained the desired strength comfortably. It achieved 50N/mm<sup>2</sup> after just 36 hours and went on to achieve 90N/mm<sup>2</sup> after 28 days providing the necessary support and ensuring that deadlines were met comfortably.

**TOPROC**  
RAPID

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