

PROVEN PERFORMANCE

*ALCAN SMELTING PLANT
THE ULTIMATE HIGH EARLY STRENGTH CONCRETE*

TOPROC
RAPID

Product Toproc Rapid
Client ALCAN
Main contractor P.A. GASCOIGNE
Location MAINTENANCE TO CONCRETE
FLOORING, ALCAN SMELTING PLANT
Date of completion JANUARY 2008

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

THE CHALLENGE

P.A. Gascoigne, fixed maintenance contractor at one of Alcan's aluminium smelting plants, needed to replace the floor slabs in a crucial part of the production line. This in situ concrete replacement was a particular challenge because of the heavy industrial nature and high temperatures of the smelting process, and was further exacerbated by the 365 days a year, high yield operation of the plant. In the past, conventional concrete had been used, leading to production downtime and considerable loss of income for Alcan. Therefore the contractor contacted Tarmac to design and supply a mix of suitable strength that would allow full production to resume in less than nine days.

OUR SOLUTION

Following extensive discussions between Tarmac experts, P.A. Gascoigne and Alcan, including site visits to the Alcan plant, a number of mix designs were presented. These were then tested at Tarmac's Bedlington plant with the outcome that Toproc Rapid, with its high early strength properties would be the best solution.

RESULTS AND BENEFITS

The commissioned slab was laid, reaching 35N/mm² after three days, 40N/mm² after four days and 48N/mm² after seven days. This rapid attainment of strength was sufficient for the smelter to be switched back on and in full operation within four days – significantly reducing the amount of downtime required.

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For more details contact your toprocrapid@tarmac.com or call **0800 1 218 218**

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