



BluCem FSC - Fast Set Concrete

SYDNEY AIRPORT SLAB REPLACEMENT

In July 2019, Sydney Airport engaged NA Group to undertake the replacement of some of the defective slabs on Runway 25. BluCem FSC was selected as it provided a durable, long term pavement solution with the latest technology in both set time and strength as well as application, using NA Group's Mobile Batching Units (MBUs).

Project Details

Project Start/Finish: July 2019
Client/End User: Sydney Airport Corporation Limited (SACL)
Contractor: NA Group
Engineer/Designer: SACL

Application

WHERE WE USED BLUCEM FSC

A total of five slabs at approx 13m³ each (6m x 4m x 0.550m) at Runway 25 were selected by SACL for replacement. All slabs were successfully replaced using NA Group's MBUs over the course of July, even as temperatures dropped as low as 3°C, highlighting the product's true capabilities in extreme conditions.

WHY WE USED BLUCEM FSC

BluCem FSC & NA Group were selected for the works on the runway as a short window of time was available to complete the concrete pours and return the asset to service. BluCem FSC is based on calcium sulphoaluminate (CSA) cement technology which incorporates innovative concrete design, quality control, outstanding speed and durability which allows BluCem FSC to be applied on site, drastically reducing construction time and cost.

Features and Benefits

- High early flexural strength > 4MPa at 4hrs
- 100 year design life
- Long term stability
- Low dry shrinkage.

Summary

Work on the project started at 11:00pm and was completed before 1:00am each shift. This time period cannot be achieved without superior materials as well as expert planning and experience; a true testament to NA Group's professionalism. BluCem FSC achieved the desired early flexural and compressive strengths that SACL specified, even with ambient temperatures as low as 3°C, allowing the runway to open without any delays.

