

# BluCem FSC - Fast Set Concrete

## SYDNEY AIRPORT SLAB REPLACEMENT



In July 2019, Sydney Airport engaged Bluey and its specialised contractor to undertake the replacement of defective slabs on Runway 25. BluCem FSC and the latest technology in Mobile Batching Units were selected to provide a durable, long term pavement solution.

### 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. 13m<sup>3</sup> 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 BluCem FSC's true capabilities in extreme conditions.

#### WHY WE USED BLUCEM FSC

A unique feature of our fast set pavement technology is the ability to adjust the set-time of the mix, regardless of the conditions. This means complete control of time and placement to return the asset to service. BluCem FSC's early flexural and compressive strengths allowed 700 tonne Airbus A380s, to safely taxi over the new slabs, just hours after being placed.

### Features and Benefits

- High early flexural strength > 20MPa 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 speed cannot be achieved without superior materials as well as expert planning and experience. 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.

