



CAPITA

CLIENT Costain/Capita
 CONSULTANTS Costain/Capita
 LOCATION M25
 Bell Common Tunnel
 CONTRACTOR Aggregate Industries
 QUANTITY 22,000m²
 PRODUCT GlasGrid®
 CompoGrid CG100
 DATE July - November 2009

KEY OUTCOMES

- Longevity** Extending pavement life up to five times
- Technology** By using ARCADESO software, this enabled the client to forecast the effect of implementing the solution
- Efficiency** Keeping disruption to a minimum by operating over 4 nights
- Safety** Reducing road surface related accidents and collisions
- Results** The CompoGrid treated areas in the tunnel are still crack free nearly 7 years on
- Environmental** Providing a greener solution by allowing a thinner pavement design to reduce carbon footprint

PRODUCT SPECIFICATION

GlasGrid® CG100

Tensile strength	115 x 115 +/- 15 kN/m
Melting Point Coating	> 232° C
Melting Point Glass	> 820° C
Grid Size	25 x 25 mm
Mass per Unit Area	542 g/m ²
Roll Length	60 m
Roll Width	1.5 m

GlasGrid® is an exceptionally strong reinforcement grid structure that is able to control crack growth and increase load bearing capability. It can extend pavement life up to a factor of 5 and permits thinner pavement design, making it the best choice price wise, whilst reducing the carbon footprint.



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01525 351 903

info@asphaltrs.co.uk



ROUTE PLANNER

START JULY 2009

Consulting with Costain/Captia to identify the M25 Bell Common Tunnel issues.

FIRST STEP

Using (ARCDESO) Technology to help decide the best solution.

HIT THE ROAD

Working with Aggregate Industries and using GlasGrid® CompoGrid CG100.

MOVING FORWARD

Laying 22,000 m² GlasGrid® CompoGrid CG100 over 4 nights.

STAYING ON TRACK

Work completed on time by Asphalt Reinforcement Services qualified team.

FINISH

With the pavement life extended up to a factor of 5, the tunnel's future was looking bright.

FINISH NOVEMBER 2009

START

With tens of thousands of vehicles travelling daily, the M25 is constantly busy. This means there is constant pressure on its road surface. Working closely with the client, Asphalt Reinforcement Services wanted to find the best way to arrest development of reflection cracks in the Bell Common Tunnel on the M25. What was needed was a maintenance free solution that would reduce reactive maintenance costs.

ROUTE

That's where Anti-Reflective Cracking Design Software (ARCDESO) came in. The technology helped Capita in their design of a 95mm asphalt overlay of a continuously reinforced concrete pavement. Next, GlasGrid® CompoGrid CG100 was installed prior to the overlay, in order to arrest reflection cracks that could develop in the bituminous layers. The 22,000m² area of GlasGrid® CompoGrid CG100 was installed over 4 night shifts by specially trained operatives. They used purpose built applicators, specifically designed to pretension and install the reinforcement, free from any wrinkles or folds for a smooth finish.

FINISH / DESTINATION

The beauty of ARCDESO was that the client was able to see a model of the lifetime performance of the pavement. The GlasGrid® CompoGrid CG100 stood out as the most effective way to strengthen and prolong the pavement life.

'I was highly impressed by the speed and quality of the ARS installation operation. The CompoGrid treated areas in the tunnel are still crack free in April 2016.'

Andy Goodwin
Project Manager for Costains

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