



SAMI SOLUTIONS

Compogrid

Department of Transport SA



Compogrid Solution No. 1

New pavement reinforcement and moisture barrier system



Following the successful introduction of the pavement reinforcement system, GlasGrid, SAMI has introduced CompoGrid, a composite pavement reinforcement system and moisture barrier.

Combining a high modulus fibre-glass mesh and a non-woven polypropylene fabric, CompoGrid is designed to extend the life of pavements by reducing the incidence of problems like reflective cracking.

To enable designers to specify

the product that matches their design requirements, CompoGrid is available in two strengths — CG50 which has a grid tensile strength of 50 kN/m across the width and length, and CG100 which offers double the strength.

The first field trial of CompoGrid in Australia was completed about nine months ago by the SA Department of Transport, which wanted to evaluate the performance of CG50 in controlling reflective cracking com-

pared to a conventional stress absorbing membrane interlayer (SAMI).

The road chosen for the project was a 1.5 km section of Waterloo Corner Road in the northern Adelaide suburb of Salisbury (5×10^6 ESAs)

Over the past four years, sections of this road have been rehabilitated by deep lift insitu cement stabilising the existing pavement and applying a thin 35 mm dense grade asphalt incorporating a 7 mm SAMI.

However, these sections exhibited reflection cracking of the cement stabilised layer within twelve months of construction.

"Because this type of rehabilitation is very economical, more positive solutions to inhibit reflective cracking were sought," said the SA Department of Transport's Supervising Materials Engineer, Bob Andrews.

"Having had some experience with geogrids beneath asphalt and fabric sealed pavements, when we heard about the development of CompoGrid, we were keen to see how it would perform.

"This seemed to be an ideal project in which to evaluate the effectiveness of the new material in reducing reflective cracking in this situation."

Within the 1.5 km lane length, CompoGrid was placed over a 500 m long section in order to make direct comparisons, with the remainder of the length being a SAMI.

In preparation for the CompoGrid, a thin asphalt lev-

elling course was placed on top of the stabilised pavement

tional SAMI is starting to show a few signs of reflective crack-



surface to reduce roughness caused from trafficking prior to sealing.

"Some problems with laying the CompoGrid were experienced due to the size of the front end loader used to handle the rolls of material, but this was by no means the fault of the product," he said. "It adhered well to the tack coat and didn't budge during paving."

Andrews has regularly inspected the trial surface and, with the age now approaching nine months, reports that the CompoGrid section is holding up very well, while the conven-

ing. "Obviously the use of a product like CompoGrid adds to the cost of a project, however, where the choice is major pavement reconstruction or having to start crack sealing within six to twelve months, we believe its extra cost may be justified," said Andrews.

"We certainly believe the product has a lot of potential and are planning a couple of further field trials in overlays over cracked and fatigued asphalt," he said.

CompoGrid is also being trialled by the Roads and Traffic Authority of NSW.



The CompoGrid was placed over a tack coat and did not budge during the paving process.



For further information on any of the products featured in this Case Study or any of SAMI's other specialist road maintenance products and services, please contact:

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