

# **INHIBITING REFLECTIVE CRACKING**

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## **SUMMARY**

Laboratory testing has shown that when man-made fabrics are used in the construction of SAMI's, the amount of tack-coat is the most important factor that influences shear strength. The optimum application rate is considerably larger than that normally specified for tack-coating.

Further tests have shown that a SAMI will creep significantly under thermally-induced shear stresses, and can therefore fulfil a stress-relieving function in the road. Emulsion tack-coat rate was again found to be the most important variable.

Finally, a method has been outlined for quantifying SAMI behaviour under traffic loading, using dynamic testing of samples. Preliminary tests have shown that this behaviour is markedly non-linear, and visco-elastic, even under rapid traffic. This is due to the high proportion of bitumen in the SAMI's, and will be taken into account in later Finite Element analyses by the authors. These analyses will determine the optimum SAMI configuration, in terms of minimizing the rate of reflective cracking through an overlay.