

Viaflex[®]

SAMI



Viaflex SAMI (Stress Absorbing Membrane Interlayer) is a fine graded, polymer modified asphalt specifically designed for overlays onto concrete, cement bound bases, or where movement of underlying pavement layers is likely to result in reflective cracking.

Through the use of a highly modified bitumen binder and selected fine aggregates, Viaflex SAMI acts to absorb the stresses from movement in the underlying layers whilst eliminating the need for expensive grid systems.

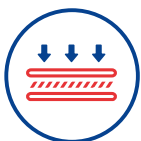
Applications

- Overlays to concrete and cement bound bases.
- Overlays to cracked lower layers susceptible to movement.
- Concrete Bridge Decks.
- High stress areas liable to fatigue and deformation.

Features and benefits



Highly resistant to reflective cracking



Absorbs stresses caused by underlying movement



Excellent resistance to deformation and fatigue



Replaces the need for expensive grid systems



Protects against water ingress



Extends pavement life and reduces maintenance



Fully recyclable

Product Availability

Viaflex SAMI is produced at all Cemex Asphalt supply plants. Due to the requirement for polymer modified bitumen, minimum volume and notice period may apply at some locations. Viaflex SAMI is particularly suited for installation between March and September however it is possible to install all year round, advice for winter installation can be provided by Cemex technical department.

Quality

All our asphalt production facilities are quality assured to BS EN ISO 9001 and our asphalt is UKCA marked through our third-party certification to BS EN 13108 Factory Production Control. Through our National Technical Centre based in Southam, we are committed to bring our customers the highest quality and most innovative products in the industry.



Delivery

VIAFLEX SAMI should be delivered or collected using a suitably insulated and sheeted delivery vehicle. An appropriate release agent such as water or vegetable oil should be used in delivery vehicles. Diesel should not be used as a release agent to clean tools and equipment as it has a detrimental effect on asphalt.

Our network of collect plants sells Leoclean, a heavy-duty cleaner which is ideal for removing mineral oil-based substances such as bitumen and tar. Additionally, we have a wide range of emulsions, sealants, truck sheets and tools to meet your everyday needs.



Technical Information

Viaflex SAMI is a fine graded asphalt manufactured with selected fine aggregates, and a high proportion of premium polymer modified bitumen (PMB). The PMB makes this dense asphalt mix extremely flexible, allowing it to absorb tensile stresses caused by thermal movement of underlying concrete bases as well as those caused by trafficking.

Cracking of asphalt is often complex, with cracks originating from both the top and bottom of the pavement structure. Concrete and cement bound bases are jointed as this allows the movement in the concrete which is caused by natural thermal variation. As concrete heats up it expands, and in turn contracts when cooling.

The movement of the concrete is concentrated at the joint locations which causes tensile stresses in the asphalt layers above. This causes cracks to originate at the bottom of the asphalt layer which gradually move up through the pavement in the form of reflective cracks. Further vertical movement occurs as a result of trafficking as vehicles pass over the concrete slabs. In this case the cracks are most likely to begin at the surface and move down through the structure. When compared to a conventional asphalt overlay, Viaflex SAMI significantly reduces the speed in which such cracks develop.

Design Specification

Design Air Voids (%)	Vmax 3.0
Deformation Resistance - Maximum Rut Depth (mm)	RDAIR 7.0
PMB Grade*	65/105 - 75 or 75/130 - 75

*Advice on the appropriate PMB Grade can be provided by Cemex Technical Department.

Installation

Installation should be carried out in accordance with BS 594987. Viaflex SAMI should be installed by paving machine, with hand laying being limited to small, confined areas. When overlaying concrete, any cracks should be suitably treated, and any loose or broken material removed. It is recommended that tanker applied bond coat is used on the substrate and between layers of Viaflex SAMI.

It is vital to keep Viaflex SAMI as hot as possible prior to installation and final compaction. The minimum acceptable temperature on arrival at the site is 140°C, with final compaction having been achieved before the material has cooled to 120°C. Viaflex SAMI should not be installed during heavy rain/snow. Laying should cease if the air temperature reaches 0°C on a falling thermometer.

Compaction should be carried out as soon as possible after the Viaflex SAMI has been spread. A minimum 6 tonne roller should be used for compaction. Smaller plate compactors/rammers should only be used in areas not accessible by the roller. 8-10 passes of the roller should be suitable in most applications. Viaflex SAMI should be left to cool before being overlaid. It is recommended that asphalt used to overlay Viaflex SAMI should contain a suitable Polymer Modified Bitumen to further assist in the prevention of reflective cracking.

	NOMINAL LAYER THICKNESS (mm)	MINIMUM THICKNESS AT ANY POINT (mm)
0/4 Viaflex SAMI	20 - 25	15

Maintenance and Aftercare

No specific maintenance regime is required for Viaflex SAMI and it should be treated in much the same ways as for any asphalt surfacing.

Although Viaflex SAMI significantly delays the onset of reflective cracking when compared with standard asphalt mixes, such cracking will eventually occur at the pavement surface. Regular inspections should be carried out to identify these as soon as possible and an appropriate treatment should be carried out.

Responsibly Sourced

CEMEX's commitment to sustainable development and ethical and responsible sourcing has been formally recognised through this official accreditation.



The BES 6001 certification complements a range of other ongoing initiatives at CEMEX UK to reduce waste, water, energy use and CO₂ emissions, while increasing the use of alternative fuels and by-products in the manufacturing of building materials.

For further information please contact our Asphalt sales department on:

 **0345 155 6367**

 **asphaltukquoterequest@cemex.com**

 **cemex.co.uk/asphalt-range**

Cemex is a global leader in the building materials industry providing high-quality, innovative products and exceptional service to both customers and the community in the most sustainable and efficient way possible.

Cemex UK Operations Ltd, Cemex House,
Binley Business Park, Harry Weston Road,
Coventry, CV3 2TY

© 2023 Cemex Innovation Holding Ltd., Switzerland,
All Rights Reserved

