

Technical Data Sheet

Viva Bitumen A10E

Polymer Modified Bitumen



Description

Viva Bitumen A10E is a high performance SBS modified bitumen. This extremely elastic binder greatly enhances the resistance to permanent deformation and resistance to fatigue cracking of asphalt mixtures. Viva Bitumen A10E is designed for applications where extreme axle loading occurs, such as airport use, container terminals and heavily trafficked intersections and inclines.

Performance features

The addition of carefully selected polymers can significantly alter the rheological characteristics of bitumen resulting in greatly enhanced performance of both the binder and the asphalt mixture. These are;

- Reduced temperature susceptibility
- Increased stiffness modulus
- Substantially increased elasticity
- Improved adhesion

Various types of polymers have been used as bitumen modifiers, however tests have shown the most effective to be the thermoplastic rubbers of the SBS type (Styrene - Butadiene - Styrene block co-polymer).

The introduction of the SBS polymer greatly improves binder adhesion and elasticity.

This technology is only available through the integration of these premium SBS polymers with high-grade bitumen and other specially selected materials to give a binder that combines superior performance with safe handling and ease of application.

This ensures the formation of a stable, three dimensional network within the bitumen, giving Viva Bitumen A10E substantially improved properties when compared with conventional bitumen and other PMB's.

Summary of benefits

The advantages conferred by Viva Bitumen A10E in asphalt mixtures compared with conventional materials are as follows:

- Greater resistance to permanent deformation
- Improved fatigue performance
- Increased resistance to reflective cracking
- Provides a durable surface of high cohesive strength
- Improves adhesion between wearing and base course
- Greater ability to absorb thermal movements

Applications

Viva Bitumen A10E is typically used as a binder in locations where extreme traffic loads and/or extremes of temperature can be expected. Viva Bitumen A10E is ideal for use at corners, controlled intersections, braking points and acceleration areas which have intensified problems of damage, deformation and breakdown of pavements

Class	Mixing temperature	Medium term storage temperature	Medium term storage time	Minimum compaction temperature
Viva Bitumen A10E	165 - 175°C	140 - 160°C	10 -7 days	110°C

Further information on handling recommendations for polymer bitumens can be found in AAPA Advisory note 7 and APRG pavement work tips no.13

Health & Safety

Viva Bitumen A10E is unlikely to present any significant health or safety hazard when properly used in the recommended application where good standards of industrial practice are maintained.

Further guidance on Product Health and Safety is available on the relevant Safety Data Sheet

Specifications/approvals

AG :PT/T190

A10E

Typical characteristics

Description	Units	Methods	Typical
Consistency at 60 C	Pa.s	AG:PT/T1 21	8000 min
Stiffness at 25 C	kPa	AG:PT/T1 21	30 max
Torsional recovery at 25 C	%	AG:PT/T1 22	60 min