POLYMER MODIFIED BITUMEN FOR ROAD BUILDING





SBS MODIFIED BITUMEN FOR ROAD APPLICATIONS

GENERAL DESCRIPTION

ESHAPRENE is an elastomeric bitumen for road applications, modified with SBS thermoplastic polymer, and it is according to **EN-14023** requirements.

APPLICATIONS

ESHAPRENE is a suitable binder for the high quality asphalt mixtures for road application especially when high temperature fluctuations or heavy traffic is expected, in the construction of drain asphalt roads and in general, whenever high level and long-Term performance is required.

PROPERTIES

- Improvement of the adhesion between the binder and the aggregates and as a consequence increase in the raveling resistance of the pavement.
- Improvement of the pavement resistance against permanent deformation caused from high temperature or heavy traffic.
- Improves the low temperature resistance to cracking and fatigue.
- Delays the ageing of asphalt pavement.

STORAGE

ESHAPRENE is delivered ready for use at 180°C. The product can be stored if required, in indirect heated tanks at 140°C with periodical agitation by either stirring regularly or through reciculation. ESHAPRENE is storage stable at 180°C for 3 days.



PRODUCTION METHOD

ESHAPRENE is produced by mixing neat bitumen with SBS thermoplastic rubber, in high shear mixers and by recirculation through homogenizer. The above procedure is ended when full homogenization has been achieved (checking with fluorence microscopy) and the measured technical characteristics are reached.

ESHAPRENE is handled the same way and with the usual technical means as the common neat bitumen. The only difference is that the mixing temperature with aggregates is $170^{\circ}\text{C}-180^{\circ}\text{C}$ and the recomended compaction temperature is $150^{\circ}\text{C}-160^{\circ}\text{C}$.

The information contained in this leaflet is, to the best of our knowledge, true and reliable and is supported by the present state of our knowledge. According to the care taken and the method of application, upon which we have no influence, the values are subject to divergence. Therefore for best results, prior to use, an application test should be made by the user under his own processing conditions.

Alfa-Alfa Energy S.A.

ATHENS/CENTRAL OFFICES-FACTORY: Aspropyrgos Beach, 193 00 Aspropyrgos, Attica
T +30 2105518700, F +30 2105572974 | SALONICA/OFFICES-WAREHOUSE: 18 Epirou Street, 570 09
Kalochori, Salonica, T +30 2310783725, F +30 2310783326 | www.esha.gr • info@esha.gr









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RECYCLING ASPECTS

The pavement constructed with the use of **ESHAPRENE** can be fully recycled and no special treatment concerning the recycling method and the safety conditions is required. The only provision to be made is that application temperatures should not exceed 200°C.

TRANSPORTATION

ESHAPRENE is bulk transported in hot condition with heated tanks or in solid state in metallic drums of 180 kg that can be remelted by mean of bain Mari.

REMARKS

Contamination with other bitumen must be avoided. Any contamination will alter the special characteristics of ESHAPRENE.

TECHNICAL CHARACTERISTICS	
Softening point, °C, EN 1427	≥75
Penetration, dmm, EN 1426	25-55
Storage stability, EN 13399, °C	≤ 5
Retained penetration RTFOT, % EN 12607-1 , EN 1426	≥ 50
Elastic Recovery at 25°C, %, EN13398	≥ 80
Elastic Recovery after RTF0T σε 25°C,%, EN 13398	≥ 80
Flash Point, °C, EN 22592	≥ 250
Fraass breaking point, °C, EN 12593	≤-10
Solubility %, EN 12592	99,0 minimum

Tolerances in the nominal values are in accordance with respective standards. Producer reserves the right to modify the properties of his products.

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