

## **PERFORMANCE EVALUATION OF ROMANIAN MODIFIED BITUMENS USING THERMOPLASTIC ELASTOMER SBS**

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### *ABSTRACT*

The performance of the products and processes used in road service is sometimes limited. In order to improve one or more of their features, polymers can be added, increasing the resistance of the asphalt to permanent deformation at high road temperatures, without adversely affecting the properties of the bitumen or asphalt at other temperatures, reducing the Fraass breaking point temperature and improving the flexibility of the asphalt. The polymers are organic, inorganic or mixed macromolecular substances. Building materials are especially organic or mixed polymers because during manufacturing they pass through a plastic phase, which facilitates their processing. In the present paper five bitumens commonly used in Romania to manufacture asphalt-polymer binder have been used. The copolymer adopted for this study is an SBS copolymer and it is routinely used for bitumen modification. Bitumens determinations have been made in laboratory before and after the modification, comparing the results and drawing conclusions. The use of modified bitumens offers a solution to reducing the frequency of maintenance works required at particular locations and provides a much longer service life for maintenance treatments at difficult sites.