

The Effect of Styrene-Butadiene-Rubber (SBR) Polymer Modifier on Properties of Bitumen

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Abstract : In order to use bitumen in hot mix asphalt, it must have specific characteristics. There are some methods to reach these properties. Using polymer modifiers are one of the methods to modify the bitumen properties. In this paper, the effect of Styrene-Butadiene-Rubber that is one of the bitumen polymer modifiers on rheology properties of bitumen is studied. In this regard, the rheological properties of base bitumen and the modified bitumen with 3, 4, and 5 percent of Styrene-Butadiene-Rubber (SBR) were analysed. The results show that bitumen modified with 5 percent of SBR has the best performance than the other samples.

Keywords : bitumen, polymer modifier, styrene-butadiene-rubber, rheological properties

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