

Laboratory Study on SBS Modified Bitumen with Titan Copolymer

Ajay Kumar Mandrwalia¹, Arun Gaur², Abhishek Mittal³

¹Department of Civil Engineering, Manipal University Jaipur, Rajasthan

²Department of Civil Engineering, Malviya National Institute of Technology, Jaipur, Rajasthan

³CSIR-CRRI, Delhi

ABSTRACT

The main objective of the study has been to evaluate the laboratory performance of SBS modified bitumen and its comparative performance when Polyethylene polymer “Titan” mixed with the SBS modified bitumen. The addition of small amount of SBS polymer dramatically changes the visco-elastic properties of the binder. SBS modified binder also requires high blending, mixing and placement temperatures. Therefore for better stability, workability and elastic behaviour of bituminous mixes they may be used in conjugation with other additives such as PE wax and PE Co-polymer (7205 and 7686). It has been established that elastic and tensile properties of bituminous mixes increased by the addition of PE Copolymer.