STRUCTURAL REHABILITATION WITH THINNER LAYERS

E. Jellema, M. Kowalczyk & W. C. Vonk
Kraton Polymers Research B.V., Amsterdam, The Netherlands

ABSTRACT
Traffic intensities and pavement loadings are ever increasing and therefore, more durable pavements are needed. Such a pavement should have improved rutting and cracking resistance, leading to a longer service life. By using SBS modified binders with relatively high polymer content it is possible to achieve this. We show that by using the Highly Modified Asphalt (HiMA) technology the fatigue resistance of the asphalt can be improved to the extent that asphalt pavement can be applied with reduced thickness. Potentially, the thickness reduction can more than compensate for the higher binder costs and still provide improved performance. We validated our laboratory experimental evidence in trials at the National Center for Asphalt Technology (NCAT, Auburn, Alabama). This paper reports an update on the performance of the NCAT test sections, which are a new pavement with reduced thickness and a structural rehabilitation. For both sections the HiMA technology was applied.