PERFORMANCE TESTING OF A STEEL CORD BASED CRACK-PREVENTING INTERLAYER

F. Vervaecke & H. Cornelus
NV Bekaert SA, Zwevegem, Belgium
P. Straubinger
Bekaert GMBH, Neu – Anspach, Germany

ABSTRACT
The occurrence of cracks in asphalt roads is a universal problem. Over the last 30 years, there has been a significant increase of road renovations combining asphalt with crack preventing interlayers. These crack preventing interlayers aim to increase the sustainability of the renovation and thereby contribute to a general reduction of the carbon emissions. There is a huge variety of interlayers. These do not only differ in material or form but also in method of construction, performance and durability. In 2012, Bekaert started the development of a steel-based crack preventing interlayer. Due to the favorable properties of steel, 100% of the material stiffness and tensile force is used in the application, which results in excellent crack preventing properties. In this article, product performance of the new steel cord based interayer is evaluated and compared to reference material and another glass/carbon interlayer using modified 3-point bending testing and thermal plate testing.