

Abstract

The objective of this study is to improve bitumen performance by incorporating a recycled polymer waste. The raw material used is an ethylene vinyl-acetate-based waste (EVA), which has been dereticulated by ozone in a solvent medium. The incorporation of ozonated waste in bitumen shows that the softening temperature and penetrability of bitumen depend on operating conditions of ozonization. The study of ozonization parameters and their influence on softening temperature, penetrability and penetrability index is achieved by a Doehlert matrix. Experimental results show that the modified bitumen has good penetrability and a higher softening temperature