

ABSTRACT

The purpose of this study is to determine whether adding glass powder to the bituminous mix is appropriate. Broken or used glass is ground into a fine powder and tested for compatibility with bitumen pavement. The Marshall and volumetric properties are used to deduce the recommendations. Reusing waste products reduces pollution because there is less or no disposal required. Bitumen's penetration, softening point, flash and fire point, viscosity, and ductility tests are examined. The glass powder is lastly incorporated into the bituminous mixture and checked for stability using the Marshall test. Thus, the use of glass powder could aid in enhancing the functionality of road surface. The loss of adhesion is one of the primary mechanisms of water damage in asphalt mixes containing waste glass powders which is mainly attributed to the smooth surface of the glass may undermine the bitumen-aggregate adhesion and accelerate the stripping.