ABSTRACT

The experiment is imperative to the use of waste Blister plastic (medical) as modifiers for bitumen modification. These waste have proven to modify bitumen yielding several benefits including improved rutting resistance, fatigue cracking and durability, the use of blister plastic for pharmaceuticals has increased recently while mitigating environmental hazards accrued from their increasing disposal to the environment. This research investigates the properties of bitumen modified with wastes such as Blister Plastic for applications in flexible pavements. Base bitumen was partially replaced with blister plastic at 5%, 5.5% and 6% replacement level to develop blister plastic modified bitumen. Bitumen tests such as specific gravity, penetration, ductility, flash & fire point and softening point were investigated to determine the behaviour of the bitumen. Aggregate tests such as specific value test, water absorption test, impact value test, crushing value test to determine the behaviour of aggregate. Marshall Test for normal bitumen and as well as for blister plastic mixed bitumen. It results to improved rutting resistance, fatigue cracking and durability of bituminous pavement and also it control the waste disposal of blister plastic. It can be concluded that incorporating blister plastic blended with bitumen results in increased performance.