

## **Improvement of Modified Bitumen Using Low Density Polyethylene**

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The modification of bitumen mainly involves on better materials properties and lower short term failures. At the same time, the durability also plays with for reducing maintains cost. In this manner, the wastage Low Density Polyethylene (LDPE) was used as a polymeric modifier of bitumen as such as 2%, 4%, 6% and 8% of total bitumen content and the properties of those samples were investigated under penetration test, softening point test, ductility test and specific gravity test. The 6% of LDPE content was preferred as a bitumen modifier percentage which was used to improve the performance of bitumen at high temperature. The strength and elastic properties of bitumen was validated in this modification. Finally, the Marshall test was conducted with using neat bitumen and modified bitumen. The physical properties of asphalt mixture were differed when the modified bitumen was used as a binder. The durability of pavements can be improved by using wastage LDPE.

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