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Guided By

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## **SMT. S. R. PATEL ENGINEERING COLLEGE, UNJHA**

### **Project Title**

### **“USE OF WASTE PLASTIC IN BITUMINOUS CONCRETE MIX DESIGN”**

#### **Abstract:**

Bituminous mixes are most commonly used all over the world in pavement construction. Flexible pavement constitutes over 95% of total road network in India. In 1960, Charlie Mac Donald in Phoenix, Arizona used tyre rubber as an additive in bitumen binder modification. The useful life of flexible pavement has declined due to high susceptibility to temperature variations, tendency to crack, lesser effective life. In addition to, changes in traffic details using the road. Bituminous pavements fail to give the expected service life under adverse climatic, environmental & traffic conditions. This caused to look for alternative methods of road construction in which one of major development of materials are in the area of utilization of bitumen modifiers such as waste materials such as LDPE & HDPE. In this study we refer different research paper and from this paper we find that 4% HDPE and 4% LDPE increase the physical properties of bitumen and stability of bituminous mix. We further going to use LDPE and HDPE of 1%, 2%, 3% and 4% Proportion of bitumen and then we will check the physical properties and stability value. In this study we find the physical properties of neat bitumen and aggregate.

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