

Reuse of Polyethylene Waste in Road Construction

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The cost of construction of flexible pavements depends on thickness of the pavement layers. The thickness of pavement mainly depends on the strength of the subgrade. By suitable improvement to the strength of the subgrade, considerable saving in the scarce resources and economy can be achieved. Because of their lightweight, easy handling, non-breakable and corrosion free nature, polyethylene have surpassed all other materials in utility. But polyethylene waste has been a matter of concern to environmentalists as it is non-biodegradable. In this investigation, an attempt has been made to study the improvement of California Bearing Ratio (CBR) value of soils stabilized with waste polyethylene bags. This alternative material is mixed in different proportions to the gravel and clay to determine the improvement of CBR value. Use of the waste polyethylene bags observed to have a significant impact on the strength and economy in pavement construction, when these are available locally in large quantities.

Key words : *Polyethylene waste, stabilization, pavement, reuse*