论文

沥青混合料用纤维性能分析

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摘要：

试验对比分析了木质素纤维、腈纶纤维、聚酯类纤维和矿物纤维四种常见的沥青混凝土路用纤维的性能.研究认为，纤维能显著改善沥青混凝土的材料性能，但不同纤维的性能及其改善作用存在较大的差异.腈纶纤维对改善沥青混凝土的高温性能、低温性能、水稳定性效果最好，其次为聚酯纤维，木质素纤维的最差.矿物纤维虽然有天然的性能优势，但在混合料中的性能却表现一般，因此，路用纤维的选择必须结合其在沥青混合料中的性能综合确定.

关键词： 沥青混合料 纤维 性能

Performance analysis on the fibers of a bituminous concrete mixture

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Abstract:

This experiment analyzed the road function properties of four familiar type's fibers in bituminous concrete by contrast, which are lignin fibers, acrylic fibers, polyester fibers and mineral fibers. The fibers can notably enhance the performance of bituminous concrete, but the function of fibers and the degrees of enhancement have bigger differences. The acrylic fibers can enhance the high temperature function, low temperature function and the water stability properties of bituminous concrete best, and the polyester fibers and lignin fibers can respectively enhance the above properties less and lest. Although the mineral fibers has the natural function advantage, its function performances are common in the mixture. So the choice of fibers used for road must be considered comprehensively combined with its function in bituminous mixture.

Keywords: bituminous concrete mixture fiber performance

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1. 刘树堂,张浩,冯勇 .类似级配沥青混合料最佳油石比关系研究[J]. 山东大学学报(工学版), 2006,36(6): 91-94

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