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Water Absorbing Pavement by Using Porous Concrete

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***Abstract*:** *Porous pavement, particularly porous concrete, has emerged as a highly effective and sustainable solution for storm water management. This research paper aims to comprehensively explore the utilization of porous concrete as a water-absorbing pavement system, with a focus on its environmental benefits and potential for sustainable construction practices. The study investigates the significant impact of porous concrete on storm water volume reduction, water quality treatment, groundwater replenishment, and mitigation of the urban heat island effect. Additionally, the paper delves into the production process and unique characteristics of porous concrete, emphasizing the critical importance of achieving high water permeability and maintaining open pore continuity. Furthermore, the incorporation of supplementary cementations materials, such as fly ash and ground granulated blast furnace slag, as well as the utilization of recycled aggregates, is discussed in detail, highlighting their potential in enhancing the environmental friendliness of porous concrete. The research findings contribute to a comprehensive understanding of the effectiveness and potential applications of porous concrete, providing valuable insights for sustainable storm water management and promoting eco-friendly construction practices.*

Keywords: *Porous pavement, Porous concrete, Storm water management, Water-absorbing pavement, Environmental benefits, Sustainable construction, Storm water volume reduction, Water quality treatment, Groundwater replenishment, urban heat island effect*

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