



Investigation on Mechanical properties of Geopolymer Concrete Floor Tiles

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Abstract: The concrete world needs to be update day by day to control the emission provided by cement industries. In addition, the building material sector needs different kind of material for both interior and exterior with good durability and ease of availability. Geopolymer concrete which an alternative for the concrete for both structural and nonstructural applications which is having a better character of durability and strength parameters. In this paper, the geopolymer tiles with partial replacement of fly ash for a floor tiles with 300mm x 300mm has been discussed for the mechanical and physical properties as per Indian standards. Adding of alkaline solution strength of the geopolymer concrete tiles in Modulus of rupture (MOR) has been improved with the curing temperature. It also shows 1.69 times more strength when compared to the normal concrete tiles. Water absorption and compression strength shows better results as per IS code requirements.

Keywords: Building materials, Geopolymer, Tiles, Alkaline, Durability.

E.Prabakaran *et al*/International Journal of ChemTech Research, 2017,10(11): 74-79.
