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A Study on Bonding Strength, Waterproofing and Flexibility of Environment Friendly, and Cost Effective Cementitious Grout Mixture for Tile Joints

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Abstract : This paper presents the experimental investigation on the bond strength, waterproofing abilities and flexibility of tile joint when Ordinary Portland Cement (OPC) or White Portland Cement (WPC) CEM II A-LL 42.5N and porcelain powder graded between 200 microns and 75 microns is mixed with vinyl acetate monomer (VAM), hydroxypropyl methyl cellulose ether, ethylene co-polymer rubber powder and Styrene butyl rubber (SBR). Use of porcelain powder which is tough to decompose as a form of industrial refuse which helps environmental safety and waste usage.

Keywords : styrene butane rubber, hydroxypropyl methyl cellulose ether, vinyl acetate monomer, polymer modified cement, polyethylene, porcelain powder
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