

Flexural Toughness of Fiber Reinforced Reactive Powder Concrete (RPC)

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Abstract : According to the ASTM C1018 toughness index method, the single and combined toughness effects of copper coated steel fiber and polypropylene (pp) fiber on reactive powder concrete (RPC) were investigated. Through flexural toughness test of RPC with different fiber volume dosages, the corresponding load-deflection curves were also drawn. Test results indicate that the binary combination of fibers provide the best flexural toughness, and improve the post-peak load-deflection characteristics of RPC. However, the single effect of pp fibers was not pronounced on improving the flexural toughness of RPC.

Keywords : RPC, PP, flexural toughness, toughness index

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