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Self-Healing Performance of Heavyweight Concrete with Steam Curing

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Abstract : In this study, the crack self-healing performance of the heavyweight concrete used in the walls of containers and structures designed to shield radioactive materials was investigated. A steam curing temperature that preserves self-healing properties and demolding strength was identified. The presented simultaneously mixing method using the expanding material and the fly ash in the process of admixture can maximize the self-curing performance. Also adding synthetic fibers in the heavyweight concrete improved the self-healing performance.

Keywords : expanding material, heavyweight concrete, self-healing performance, synthetic fiber
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