

## **Toughness Factor of Polypropylene Fiber Reinforced Concrete in Aggressive Environment**

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**Abstract :** This study aims to determine and to present the results of an experimental study of Synthetic (polypropylene) Fibers Reinforced Concrete (SFRC), in levels of 0.33% - 3kg/m<sup>3</sup>, 0.50% - 4.5kg/m<sup>3</sup>, and 0.66% - 6kg/m<sup>3</sup>, using cement CP V - ARI, at ages 28 and 88 days after specimens molding. The specimens were exposed for 60 days in aggressive environment (in solution of water and 3% of sodium chloride), after 28 days. The bending toughness tests were performed in prismatic specimens of 150 x 150 x 500 mm. The toughness factor values of the specimens in aggressive environment were the same to those obtained in normal environment (in air).

**Keywords :** concrete reinforced with polypropylene fibers, toughness in bending, synthetic fibers, concrete reinforced

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