

EXPERIMENTAL INVESTIGATION OF WEFT KNITTED FABRIC LAYERED REINFORCEMENT EFFICIENCY IN FIBERCONCRETE

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Reinforcing cement-based composites with continuous fibers is one of the most efficient ways to obtain high performance materials. In this paper a layers of knitted textiles with relatively simple fabric architecture was used to strengthen fiberconcrete beams. The objective of this study was to evaluate glass knitted fabric as reinforcement for fiberconcrete. For this purpose fiberconcrete beams with textile reinforcement in a form of three plies of glass weft knitted fabric (jersey) were produced. Four point bending test was used to experimentally investigate influence of textile plies on composite flexural strength. Obtained results were compared with material without textile reinforcement. The fiberconcrete reinforced by textile layers showed better flexural performance compared to non-reinforced fiberconcrete samples.

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