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Laboratory study of the effect of various fibers on the physical and chemical properties of fiber concrete

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ABSTRACT

The use of fiber concrete can have a significant change in the quantity and quality of running structures or future plans of the country. Fiber concrete is actually a composite that increases the tensile strength by applying the reinforcing fiber inside the concrete mixture and is not easily break down under the impact of impact loads. This composite combination has the proper integration and continuity and the possibility of using concrete as a possible material to produce wiggly-resistant surfaces. The use of macrosynthetic fibers increased the physical and chemical properties of concrete and reduced shrinkage of fresh and hardened concrete. Macrosynthetic fiber can be a suitable replacement for metal fiber and thermal rebars, so the use of this type of fiber has spread in recent years. Fiber concrete is currently widely used in various applications such as highways, foundations, military industries, protection walls, and other cases. In this research, the reason for the necessity of using kortta fiber, construction method, mechanical properties of fiber concrete samples according to the results of applications and research has been discussed.

Keywords: *Fiber concrete, Physical and chemical properties, Macrosynthetic fiber, Composite, Kortta fiber*