عنوان مقاله:

THE STUDY OF VELOCITY AND FREQUENCY OF PASSING WATER THROUGH A MAGNETIC FIELD AND ITS EFFECT ON THE COMPRESSIVE AND TENSILE STRENGTH OF CONCRETE

محل انتشار:

سومین کنفرانس بین المللی بتن و توسعه (سال: 1388)

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خلاصه مقاله:

Concrete is a material which can have a range of different strengths with using different ratio s of its composites. In this regard, every factor that can help us reach better mechanical properties and other characteristics of concrete is worth studying. In our study, regarding above information, we study the effects of water properties (considering magnetizing water) of concrete on some of the mechanical features of concrete containing microsilica such as compressive and tensile strength at different curing ages. The water in concrete has been passed through magnetic field with velocities such as Q, Q/2, Q/3, Q/6 and with 1, 3 and 6 passing times. The results indicate that increasing the number of times water is passed (from 1 to 6), improves the compressive and tensile strength of concrete, and decreasing the velocity of passing water through magnetic field in one cycle (from Q to Q/6) has a similar result. The improvement of decreasing the velocity in one cycle is more significant than the improvement caused by passing water through a number of times, and the compressive and tensile strength will be improved substantially. the compressive and tensile strength of concrete will be increased up to 15 % .This method is considered very .economical and does not need special equipments in industry

کلمات کلیدی:

microsilica, magnetic water, superplasticizer, compressive

لینک ثابت مقاله در پایگاه سیویلیکا: