Evaluation of Elastic Moduli of Concrete by Ultrasonic Velocity

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Abstract

One of the recommended practices to evaluate the quality of concrete is to measure the ultrasonic velocity. The velocity is then used to determine the compressive strength. Rebound hammer number and ultrasound absorption are also added to velocity data to enhance the accuracy of estimation. However, these data have not been used to estimate the elastic modulus, often required by structural engineers. A method is proposed to determine the elastic modulus of concrete by ultrasonic method.