

عنوان مقاله:

The Influence of FRP Reinforcement on Ultrasonic Pulse Velocity Testing

محل انتشار:

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خلاصه مقاله:

The researches have shown that embedded reinforcements have effects on ultrasonic pulse velocity measurements taken through structural concrete members, so reliable corrections are essential to give an estimate of ultrasonic pulse velocity in plain concrete [7]. In this paper, effects of both steel and FRP reinforcements on ultrasonic pulse velocity in longitudinal and transverse positions are studied. Moreover, the influences of reinforcements on moist cured concrete with air dried concrete are compared. The results show that: effects of both FRP and steel reinforcement in longitudinal position are more than transverse position. For each size, effects of FRP bars are more than steel bars, longitudinally and transversely. Effects of both FRP and steel bars on air dried concrete are more than moist cured concrete. . At last, the correction factors are proposed for combinations of bar size and orientation for both steel and FRP bars

کلمات کلیدی:

ultrasonic pulse velocity, FRP bars, correction, longitudinal position

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