Protection and Repair of Concrete Structures (NDT)

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NON-DESTRUCTIVE CONCRETE TESTING IN STRUCTURES

Product Code

UTC-3034 Ultrasonic Pulse Velocity Tester

Standards

EN 12504-4; ASTM C 597

Ultrasonic Pulse Velocity Tester is used to measure the velocity of propagation of ultrasonic pulses through concrete. A pulse of longitudinal vibrations is produced by an electro-acoustical transducer held in contact with one surface of the concrete under test. After traversing a known path length in the concrete, the pulse of vibrations is converted into an electrical signal by a second transducer and electronic timing circuits enable the transit time of the pulse to be measured.

BS EN 12504-4:2004 gives guidance on testing fresh concrete, hardened concrete and concrete in structures. It specifies a method for the determination of the velocity of propagation of pulses of ultrasonic longitudinal waves in concrete.

The measurement of pulse velocity can be used for the determination of the uniformity of concrete, the presence of cracks or voids, changes in properties with time and in the determination of dynamic physical properties.

UTC-3034 Ultrasonic Pulse Velocity Tester is a microprocessor incorporated equipment which can be connected to a PC through the RS 232 output. It can also be connected to an oscilloscope and can perform transit time measurement from 0.1 to 1999.9 µs with a resolution of $0.1 \mu s$. The battery operated equipment has a transmitter output of 800 V and a battery life of 18 hours of activity.

- Two 54 KHz transducers
 Transmitter and Receiver) with 3 m cable
 Calibration rod
- Coupling agent (250 mm)
 Carrying case

Dimensions	240x120x75 mm
Weight (approx.)	1,3 kg





