CODE ..... GT2205
MODEL ..... FREQUENCY METER
OVERALL DIMENSION ..... .800 x 300 x 300 mm
WEIGHT ..... .35 gr

# RESONANCE FREQUENCY METER

## STANDARDS

ASTM C215, C666 | BS 1881:209 | NF P18-414 | UNI 9771

## DESCRIPTION

Instrument for measuring the resonance frequencies of the three different vibration modes: longitudinal, transverse (flexural) and torsional. From these the following characteristics of the material can be calculated, in a non-destructive way:

- Young's modulus of elasticity
- Modulus of rigidity
- Poisson's ratio

Large display to view data analysis of time domain and frequency spectrum signals. The principle used in this meter is based on the determination of the fundamental resonant frequency of vibration of a sample generated by an impac and detected by an accelerometer. The frequency spectrum is calculated and displayed by the instrument. The data can be archived and uploaded to a PC for further analysis and inclusion in the report.

Concrete durability:
Determining resonance deflection is very important when studying concrete degradation caused by accelerated freeze-thaw cycles and aggressive environmental conditions on concrete specimens.

The advantages of resonance methods are:

- The test can be repeated for a very long period on the same sample
- The number of specimens required is therefore very small
- The results obtained with the resonance method on the same samples are more reproducible than those obtained with destructive tests and groups of specimens.

## TECHNICAL SPECIFICATIONS

- Frequency range: 10Hz ÷ 20kHz
- Sampling frequency: 20kHz or 40kHz
- Accelerometer sensitivity: 9,60 mV / g (0,979 mV / ms²)
- 12Vdc battery 4 ÷ 10 hours of continuous use
- Display: 320x240; backlit for daytime use
- Memory: more than 200 readings
- Software: Windows compatible
- Impactors: set of 6 hardened steel balls

## EQUIPMENT

- Standard bench with its accessories
- Accelerometer with cable
- Set of 6 hardened steel balls
- Electronic main unit