

Quick Diagnostic Test Concrete Strength

NON-DESTRUCTIVE TESTING

Noble Geo-Structs Pvt. Ltd. is a leading Geotechnical Consulting and contracting firm. The range of our services, quality engineering and competitive prices have made us one of the fastest growing companies of its kind in India.

The insitu tests that yield the parameters that are characteristic of insitu state of stress and more realistic are realized from the field tests.



Carbonation depth



Schmidt hammer



Half cell Potential



USPV test



Pile integrity



Cube test



103, Ganesh
Bhuvan, M.P. Road,
Mumbai 400081

www.noblegeostructs.com

info@noblegeostructs.com

91-9820285809

Schmidt Hammer Test

The Schmidt rebound hammer is principally a surface hardness tester. Used for measuring the existing compressive strength of the concrete. The hammer can be used in the horizontal, vertically overhead or vertically downward positions as well as at intermediate angle, provided the hammer is perpendicular to the surface under test.

Ultra sonic pulse velocity test

A pulse of longitudinal vibration is produced by an electro-acoustical transducer, which is held in contact with one surface of the concrete under test. Measurement of the velocity of ultrasonic pulses of longitudinal vibrations passing through concrete may be used for the following applications:

- Determination of the uniformity of concrete in and between members
- Measurement of changes occurring with time in the properties of concrete
- Correlation of pulse velocity and strength as a measure of concrete quality.
- Determination of the modulus of elasticity and dynamic poisson's ratio of the concrete

Concrete core

The concrete core of diameter 100mm are extracted.

Representative cores are extracted from the existing structures for assessing strength and permeability.

Carbonation Depth

Visual inspection

The surface conditions are examined for location and depth of cracks in the structural members.

This is to establish the extent of corrosion to the reinforcement bars.

Slab load test

The deflection of the slab is measured using dial gauge to inspect the safety of the slab for the stipulated loads.

Pile Integrity

Low strain impact integrity testing provides acceleration or velocity and force (optional) data on slender structural elements. Sonic Echo (SE) and Impulse Response (IR) are employed for the integrity test on deep foundation and piles. The method provides a rapid and simple tool for evaluation of a number of piles in a single working day.

Carbonation testing is used to determine the extent of carbon dioxide infiltration into the concrete. It also evaluates the concrete's resistance to carbonic acid penetration.

Half Cell Potential

The half-cell potential test is the only corrosion monitoring technique standardized in IS 516 (Part-5/Sec 2): 2021: Standard Test Method for Corrosion Potentials of Uncoated Reinforcing Steel in Concrete. It is used to determine the probability of corrosion within the rebar in reinforced concrete structures.

Concrete cube – Compressive strength

Concrete cube test helps to determine compressive strength, flexural strength and modulus of elasticity of cement concrete.