

C-337

**SYNOPSIS OF INDIAN STANDARD**

**IS 516 (Part 5/Sec 4) : 2020**

**HARDENED CONCRETE – METHOD OF TEST  
PART 5 NON-DESTRUCTIVE TESTING OF CONCRETE  
SECTION 4 REBOUND HAMMER TEST  
(First Revision)**

This standard was first published in 1959. In this revision, it was decided to review and update the various existing test methods of concrete. The revision of the standard is being brought out taking into consideration the latest international practices and developments in this field in the country and also introduced certain new test methods, wherever required. In the process, the various existing test methods covered in IS 516 : 1959 'Methods of tests for strength of concrete' have been revised taking into consideration primarily the corresponding ISO standards while also examining the other best practices worldover and in the country. In addition, test methods for determination of additional properties have been included in areas such as permeability, initial surface absorption, corrosion of reinforcement, carbonation of concrete (field test), accelerated carbonation test, and creep of concrete. Also, for better understanding and implementation, some of the other test methods which were spread over in number of other Indian standards have been brought together under the fold of IS 516 as its various parts, such as the splitting tensile strength, ultrasonic pulse velocity test, rebound hammer test, pull out test for bond in reinforced concrete, and determination of water soluble and acid soluble chlorides. This is with a view to making the standard complete in all respects, and rendering it a comprehensive source of provisions for testing of concrete and reference in other Indian Standards.

In this revision, IS 516 is split into 12 parts. The other parts in the series are:

- Part 1 Determination of strength of hardened concrete
- Part 2 Properties of hardened concrete other than strength
- Part 3 Making, curing and determining compressive strength of accelerated cured concrete test specimens
- Part 4 Sampling, preparing and testing of concrete cores
- Part 5 Non-destructive testing of hardened concrete
- Part 6 Determination of drying shrinkage and moisture movement of concrete samples
- Part 7 Determination of creep of concrete cylinders in compression
- Part 8 Determination of modulus of elasticity in compression
- Part 9 Determination of wear resistance
- Part 10 Determination of bond in reinforced concrete
- Part 11 Determination of Portland cement content of hardened hydraulic cement concrete

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Part 12 Determination of water soluble and acid soluble chlorides in hardened mortar and concrete

Part 5 of IS 516 is published in 4 sections as below:

Sec 1 Ultrasonic pulse velocity

Sec 2 Half cell potentials of uncoated reinforced steel in concrete

Sec 3 Carbonation depth tests

Sec 4 Rebound hammer test

This standard (Part 5/Sec 4) covers objective, principles, apparatus and procedures of rebound hammer test for determining the rebound number of hardened concrete using a spring driven steel hammer. Influence of test conditions and certain general guidance on interpreting the test results have also been included in the standard.

This standard (Part 5/Sec 4) covers objective and principle of rebound hammer test, apparatus and its checking, procedure of test, factors influencing test results, interpretation of results, etc.

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