

Synopsis for IS 516 Hardened Concrete – Methods of Test
Part 5 Non-Destructive Testing Section 3 Carbonation Depth Test

This standard (Part 5/Section 3) covers the procedure for measurement of carbonation depth of a field sample. This is a new test method included in the IS 516 series. The test is carried out by spraying phenolphthalein solution on a freshly exposed concrete surface. The details have been given on:

- a) Preparation of phenolphthalein solution;
- b) Procedure for exposing the concrete test surface ;
- c) Detailed procedures for measurement in case of linear and non-linear carbonation front; and
- d) Corrections to the measurement in presence of aggregate or air void on the test surface.

In view of the limitations of each method of non-destructive testing of concrete, it is essential that the results of tests obtained by one method should be complimented by other tests and each method should be adopted very carefully.