

IS 2386 (Part3): 1963 Methods of Test for Aggregates for Concrete Part 3 Specific Gravity, Density, Voids, Absorption and Bulking

The word **concrete**, etymologically derived from the Latin term **concretus**, which means something that hardens due to the accumulation of aggregate particles. *Concrete*, an artificial stone-like mass, is the composite material that is created by mixing binding material (cement or lime) along with the **aggregate** (sand, gravel, stone, brick chips, etc.), water, admixtures, etc in specific proportions. The strength and quality are dependent on the mixing proportions.

One of the, major contributing factors to the quality of concrete is the **quality of aggregates** used therein. The test methods given in this standard are intended to assist in assessing the quality of aggregates. In a given situation, for a particular aggregate, it may not be necessary to assess all the qualities and therefore it is necessary to determine beforehand the purpose for which a concrete is being used and the qualities of the aggregate which require to be assessed. Accordingly, the relevant test methods may be chosen from amongst the various tests covered in this standard.

This standard specifies the following tests for aggregates for concrete:

- a) Determination of specific gravity and water absorption,
- b) Determination of bulk density and voids,
- c) Determination of necessary adjustment for bulking of fine aggregate (field method)
- d) Determination of surface moisture in fine aggregate (field method)