

Concrete Cores - Determination of Density

Lab Test Reference	306
British Standard Reference	BS 1881 : Part 114 : 1983
Principal Apparatus	Weighing in Water Apparatus - Lab Inventory No.xxx Electronic Balance - Lab Inventory No.xxx

- 1 Preliminaries
 - 1.1 The test is carried out in the concrete laboratory.
 - 1.2 Check the water bath is full and that the apparatus for weighing in water is correctly set up.
 - 1.3 Check the calibration certificates for the balance is valid.
 - 1.4 Check that the sample number and test schedule correspond and obtain a worksheet from the cabinet.
- 2 Standard Test Method
 - 2.1 The density of the core as received shall be carried out by placing the core in the apparatus and lowering it into the water until completely immersed. The weight of the core is recorded as m_w in Kilograms, ensuring it does not touch the bottom and that all entrapped air is removed.
 - 2.2 The specimen is removed from the apparatus and after wiping off the surplus water the core is again weighed in air and the weight recorded as m_a in Kilograms.
 - 2.3 The volume is the value obtained from 2.1 and is equal to M_w in Kg.
 - 2.4 The density is then expressed as the mass in air divided by the volume and expressed to the nearest $10 \text{ kg/m}^3 = (M_a/M_w)$.