AS 1141.6.1—2000
(Incoporating Amendment No. 1)

Australian Standard®

Methods for sampling and testing aggregates

Method 6.1: Particle density and water absorption of coarse aggregate—Weighing-in-water method

This Standard incorporates Amendment No. 1 (October 2020). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

1 SCOPE

This Standard sets out the method for determining the particle density, apparent particle density and water absorption of aggregates substantially retained on a 4.75 mm sieve, by weighing in water.

NOTE:An aggregate containing more than 10% of material passing a 4.75 mm test sieve is regarded as a mixed aggregate. A mixed aggregate is separated into two fractions consisting of material retained on and material passing a 4.75 mm sieve. The density of the fine fractions is determined separately by the method of AS 1141.5. The density of the mixed aggregate is calculated as a weighted average as determined in Clause 7(e).

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2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS
1141 Methods for sampling and testing aggregates
1141.2 Method 2: Basic testing equipment
1141.5 Method 5: Particle density and water absorption of fine aggregate

3 DEFINITIONS

3.1 Particle density on a dry basis

The dry mass per unit volume of particles, the volume including both the permeable and impermeable voids inherent in the particles. In the context of this definition, impermeable voids are defined as voids inaccessible to water by 24 h soaking and permeable voids as those accessible to water by 24 h soaking.

3.2 Particle density on a saturated-surface-dry basis

The saturated-surface-dry mass per unit volume of particles, the volume including both the permeable and impermeable voids inherent in the particles.