AS 1141.6.2—1996
(Incoporating Amendment No. 1)

Australian Standard®

# Methods for sampling and testing aggregates

# Method 6.2: Particle density and water absorption of coarse aggregate—Pycnometer method

*This Standard incorporates Amendment No. 1 (August 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 in a pycnometer.

NOTE: An aggregate containing more than 10 percent of material passing a 4.75 mm test sieve is regarded as a mixed aggregate.

A1 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 AS 1141.5. The density of the mixed aggregate is calculated as a weighted average as determined in Clause 7(e).

**2 REFERENCED DOCUMENTS** The following documents are referred to in this Standard:

AS

| | | |
|---|---|---|
| 1141 | Methods for sampling and testing aggregates | |
| A1 1141.1 | Part 1: | Definitions |
| 1141.2 | Method 2: | Basic testing equipment |
| 1141.5 | Method 5: | Particle density and water absorption of fine aggregate |

A1 **[Text deleted]**

**3 DEFINITIONS** For the purpose of this Standard the definitions in AS 1141.1 and those below apply.

**3.1 Apparent particle density**—The dry mass per unit volume of particles, the volume including only impermeable voids inherent in the particles.

**3.2 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.

Impermeable voids are those inaccessible to water by 24 h soaking. Permeable voids are those accessible to water by 24 h soaking.

**3.3 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.