

Australian Standard[®]

Methods for sampling and testing aggregates

Method 32: Weak particles (including clay lumps, soft and friable particles) in coarse aggregates

1 SCOPE This Standard sets out the method for determining the percentage of weak particles in coarse aggregates.

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

1152 Specification for test sieves

3 DEFINITION For the purpose of this Standard, the definition below applies.

3.1 Weak particles—particles present in an aggregate sample which are identified as such when tested in accordance with this Standard. Such particles include clay lumps, soft and friable particles.

4 APPARATUS The following apparatus, complying with the relevant provisions of AS 1141.2, is required:

- (a) *Balance*—of sufficient capacity, with a limit of performance not exceeding $\pm 5\text{g}$.
- (b) *Container*—metal dish of sufficient size.
- (c) *Oven*—thermostatically controlled, to operate at a temperature of 105°C to 110°C .
- (d) *Sample dividers or quartering equipment*.
- (e) *Sieve*— 2.36 mm , complying with AS 1152.

5 TEST PORTION The test portion shall be selected and prepared as follows:

- (a) Obtain a subsample from the sample received for testing either by quartering or by the use of a sample divider so that the test portion will contain sufficient material retained on a 4.75 mm sieve to comply with Table 1.
- (b) Handle in such a manner as will avoid breaking up any weak particles that may be present.
- (c) Dry the subsample to constant mass at a temperature of 105°C to 110°C and record its mass (m_1).
- (d) Discard the aggregate particles passing a 2.36 mm sieve, taking care to minimize the breakdown of weak particles during sieving.
- (e) Determine and record the mass (m_2) of the test portion, i.e. the material retained on the 2.36 mm sieve.