Australian Standard®

Methods for sampling and testing aggregates

Method 31: Light particles

1 SCOPE This Standard sets out the method for determining the amount of light particles (i.e. particles whose density is less than 2.0 g/mL) in fine and coarse aggregates.

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

AS
1141 Methods for sampling and testing aggregates
1141.1 Method 1: Definitions
1141.2 Method 2: Basic testing equipment

1152 Specification for test sieves

3 DEFINITION For the purpose of this Standard, the definitions given in AS 1141.1 and that below apply.

3.1 Nominal size—designation of an aggregate which gives an indication of the largest size particles present.

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 ±0.5 g.

(b) *Container*—a 400 to 500 mL squat form beaker for fine aggregates, or a container of 5 to 10 L capacity and fairly squat form for coarse aggregates.

(c) *Drying oven*—capable of operating at 105 to 110°C.

(d) *Sieves*—complying with AS 1152.

(e) *Skimmer*—from 300 µm sieve cloth.

(f) *Stirring rod*—glass or metal.

5 REAGENTS The following reagents are required:

NOTE: Zinc chloride is not miscible, and care should be taken when handling it.

(a) Zinc chloride (AR Grade).

(b) Distilled water.

6 PREPARATION OF TEST PORTION The test portion shall be prepared by riffling or quartering to obtain the minimum mass as shown in Table 1. The test portion shall be dried to constant mass in an oven at 105°C to 110°C and determine its mass (m_1).