Australian Standard®

Methods for sampling and testing aggregates

Method 8: Water-soluble fraction of filler

1 SCOPE This Standard sets out the method for the determination of the water-soluble fraction of a filler for asphalt.

2 REFERENCED DOCUMENTS The following document is referred to in this Standard:

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

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

(a) *Balance*—of at least 100 g capacity, with a limit of performance not exceeding ±0.005 g.

(b) *Flask*—200 mL Erlenmeyer flask.

(c) *Mechanical shaker or stirrer.*

(d) *Oven*—a drying oven, of operating temperature 105°C to 110°C.

(e) *Sintered glass crucible*—G4 with plate 30 mm diameter.

4 PROCEDURE The test procedure shall be as follows:

(a) Dry the filler to constant mass in the oven at a temperature of 105°C to 110°C.

(b) Place approximately 10 g of the dried filler into a previously weighed 200 mL Erlenmeyer flask, weigh flask and contents, calculate the mass of the filler (m_1) to the nearest 0.01 g and add 100 mL of distilled water at 23 ±2°C.

(c) Shake well by hand until no lumps can be observed; then with the mechanical shaker or stirrer agitate at laboratory room temperature for a period of 1 h.

(d) Filter the material through a previously weighed sintered glass crucible which has been dried to constant mass at 105°C to 110°C, and wash all residue from the flask into the crucible with distilled water from a wash bottle.

(e) Wash the residue in the crucible with three separate quantities of distilled water, draining completely between washings.

(f) Dry the crucible and residue to constant mass in an oven at 105°C to 110°C. Determine the mass of the dried crucible and residue to the nearest 0.01 g. Calculate the mass of the residue (m_2).