

Australian Standard®

Method for sampling and testing aggregates

Method 5: Particle density and water absorption of fine aggregate

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PREFACE

This Standard incorporates Amendment No. 1 (December 2018). 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, the apparent particle density and the water absorption of fine aggregates or the fine fraction of an aggregate.

Difficulty may be experienced using this method when the test portion is substantially retained on the 1.18 mm sieve. Such a test portion is unlikely to retain its shape in the compaction cone making the determination of the saturated surface-dry condition difficult to judge. Under these circumstances the saturated surface-dry (SSD) condition is determined visually as that point where the surface of the aggregate still appears damp but there are no visible films of moisture present. The fact that the SSD condition was determined visually is noted on the test report.

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: Mass testing equipment
1141.6.1	Method 6.1: Particle density and water absorption of coarse aggregate— Weighing-in-water method
1141.6.2	Method 6.2: Particle density and water absorption of coarse aggregate— Pycnometer method

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[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.