

AS 1141.11.1:2020



STANDARDS  
Australia



# Methods for sampling and testing aggregates

## Method 11.1: Particle size distribution — Sieving method



AS 1141.11.1:2020

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- ARRB (Australian Road Research Board)
- Ash Development Association of Australia
- Australasian (iron & steel) Slag Association
- Australasian Procurement and Construction Council
- Australian Asphalt Pavement Association
- Australian Geomechanics Society
- Austrroads
- Cement Concrete & Aggregates Australia — Aggregates
- Cement Concrete & Aggregates Australia — Cement
- Cement Concrete & Aggregates Australia — Concrete
- National Association of Testing Authorities Australia
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# Methods for sampling and testing aggregates

## Method 11.1: Particle size distribution — Sieving method

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## Preface

This Standard was prepared by the Standards Australia Committee CE-012, Aggregates and Rock for Engineering Purposes, to supersede AS 1141.11.1—2009.

The objective of this document is to define procedures for measuring the particle size distribution of aggregate samples produced from rock, gravel, sand and recycled aggregate sources. The samples may be either plant produced, or laboratory crushed. The method uses standardized sieves in sizes between 75 mm and 75  $\mu\text{m}$ .

The major changes in this edition are as follows:

- (a) Addition of a Preface.
- (b) Additional terms and definitions, see [Clause 3](#).
- (c) Addition of a new clause on sampling, see [Clause 5](#).
- (d) Addition of mandatory washing where testing evaluates a specification requirement for the passing 75  $\mu\text{m}$  sieve, see [Clause 6.6](#).

The term “informative” is used in Standards to define the application of the appendices to which it applies. An “informative” appendix is only for information and guidance.

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## NOTES

# Australian Standard®

## Methods for sampling and testing aggregates

### Method 11.1: Particle size distribution — Sieving method

#### 1 Scope

This document sets out the method for the determination of particle size distribution in coarse and fine aggregates by sieving. The amount passing a 75 µm sieve may be determined using AS 1141.12 or by the method given in this document when samples are washed over a 75 µm sieve. If the percentage of material passing a 75 µm sieve is specified, the procedures detailed in [Clause 6.6](#) of this method or in AS 1141.12 apply.

The procedure for the determination of fine particle size distribution by decantation is described in AS 1141.19.

#### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document.

NOTE Documents referenced for informative purposes are listed in the Bibliography.

AS 1141.1, *Methods for sampling and testing aggregates, Part 1: Definitions*

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

AS 1141.3.1, *Methods for sampling and testing aggregates, Method 3.1: Sampling — Aggregates*

AS 1141.3.2, *Methods for sampling and testing aggregates, Method 3.2: Sampling — Rock spalls and boulders*

#### 3 Terms and definitions

For the purposes of this document, the terms and definitions of AS 1141.1 and those below apply.

##### 3.1

##### **may**

indicates the existence of an option

##### 3.2

##### **shall**

indicates that a statement is mandatory

##### 3.3

##### **should**

indicates a recommendation

#### 4 Apparatus

##### 4.1 Required equipment

Apparatus conforming to the relevant specifications of AS 1141.2 and the following shall be used:

- (a) *Balances* — Sufficient capacity with a limit of performance not exceeding  $\pm 5$  g for the coarse fraction of aggregate and  $\pm 0.5$  g for the fine fraction of aggregate and fillers.