



Methods for sampling and testing aggregates

Method 52: Unconfined cohesion of compacted pavement materials



AS 1141.52:2019

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The following are represented on Committee CE-012:

- Ash Development Association of Australia
- Australasian (iron & steel) Slag Association
- Australasian Procurement and Construction Council
- Australian Asphalt Pavement Association
- Australian Geomechanics Society
- Australian Road Research Board
- Austroroads
- Cement Concrete & Aggregates Australia — Aggregates
- Cement Concrete & Aggregates Australia — Cement
- Cement Concrete & Aggregates Australia — Concrete
- Engineering & Construction Laboratories Association
- National Association of Testing Authorities Australia
- University of Technology Sydney

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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 1141.52—2008, *Methods for sampling and testing aggregates, Method 52: Unconfined cohesion of compacted pavement materials*.

The objective of this Standard is to set out the method for determining indirectly the unconfined cohesion of compacted pavement materials. The method is applicable to that fraction of the material passing a 19.0 mm test sieve.

The major changes in this edition are as follows:

- (a) Inclusion of this Preface.
- (b) Additional terms and definitions.
- (c) Removal of the Appendix on Measurement Uncertainty.

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Australian Standard®

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1 Scope

This Standard sets out the method for determining indirectly the unconfined cohesion of compacted pavement materials. The method is applicable to that fraction of the material passing a 19.0 mm test sieve.

The method is not applicable to material with a plasticity index greater than 3.

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:

AS 1012.9, *Methods of testing concrete, Method 9: Compressive strength tests—Concrete, mortar and grout specimens*

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 1289.5.2.1, *Methods of testing soils for engineering purposes, Method 5.2.1: Soil compaction and density tests—Determination of the dry density/ moisture content relation of a soil using modified compactive effort*

AS 2193, *Calibration and classification of force-measuring systems*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in 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

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

- (a) *Balance* — A balance of sufficient capacity, with a limit of performance not exceeding ± 5 g.
- (b) *Base* — A flat, rigid foundation on which to compact the specimen; for example, a concrete floor or concrete block of at least 100 kg mass.
- (c) *Containers* — Airtight containers, suitable for curing moistened test samples.
- (d) *Datum bar* — A metal bar approximately 200 mm \times 20 mm \times 10 mm dimensions.