

Australian Standard™

**Hot mix asphalt—A guide to good  
practice**

This Australian Standard was prepared by Committee CE-006, Asphalt and Sprayed Surfacing. It was approved on behalf of the Council of Standards Australia on 10 January 2005. This Standard was published on 23 May 2005.

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The following are represented on Committee CE-006:

ARRB Transport Research  
Australian Asphalt Pavement Association  
Australian Chamber of Commerce and Industry  
Australian Government Analytical Laboratories, Scientific Services Laboratory  
Australian Institute of Petroleum  
AUSTROADS  
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National Association of Testing Authorities Australia  
New Zealand Bitumen Contractors Association

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## Hot mix asphalt—A guide to good practice

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AS A7—1966, AS 2150—1978 and AS 2734—1984 revised,  
amalgamated and redesignated as AS 2150—2005.

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## PREFACE

This Standard was prepared by the Standards Australia Committee CE-006, Asphalt and Sprayed Surfacing, to supersede AS 2150—1995, *Hot mix asphalt*.

The objective of this Standard is to provide manufacturers, specifiers and designers of asphalt mixes with requirements for the manufacture and placing of asphalt for use in pavements.

This Standard is not intended for use as a project specification. Project specifications for most road pavement applications are covered by standard specifications of state road authorities and local government. A guide to project specifications is provided in the *Austrroads Framework for Specifying Asphalt* and the Australian Asphalt Pavement Association *National Asphalt Specification*.

Reference to this Standard may be made in specifications for minor works, in which case the Standard may be used to determine appropriate selection of materials, asphalt manufacture and standards of workmanship.

The objective of this revision is to incorporate improvements based on user experience and reflect technical developments taking place in the industry.

Major changes to the previous edition are as follows:

- (a) Requirements for mineral filler have been introduced to replace AS 2357, *Mineral fillers for asphalt*.
- (b) Grading envelopes have been revised.
- (c) Mix design requirements for volumetric properties based on gyratory compaction have been introduced.
- (d) Mix design requirements for the Hubbard Field Method of compaction have been deleted.
- (e) Requirements for asphalt spreading, compaction and finished surface properties have been incorporated to replace the asphalt placing requirements that were previously referred to in AS 2734, *Asphalt (hot-mixed) paving—Guide to good practice*.

Since the early 1990s joint programs of AUSTRROADS, the Australian Asphalt Pavement Association (AAPA) and the ARRB Transport Research Ltd (ARRB TR) have led to the development of new test methods for asphalt. These methods form the basis of the *Selection & design of asphalt mixes: Australian provisional guide*, published by Austrroads as APRG Report No 18.

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## STANDARDS AUSTRALIA

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**1 SCOPE**

This Standard sets out recommendations for the manufacture, supply and placing of hot mix asphalt for use in pavements, including the following:

- (a) Component materials.
- (b) Mix properties.
- (c) Mix design.
- (d) Manufacturing, storage and delivery.
- (e) Sampling and testing.
- (f) Preparation of surfaces
- (g) Spreading.
- (h) Compaction.
- (i) Finished surface properties.
- (j) Selection of asphalt mix type.

This Standard also provides typical composition and test properties for most common uses of hot mix asphalt; however this does not preclude the use of alternative components or mix properties to meet specific performance requirements.

## NOTES:

- 1 Guidance on asphalt planning is given in Appendix A.
- 2 Guidance on selection of mix types is given in Appendix B.
- 3 Guidance on basis of payment for asphalt work is given in Appendix C.

**2 REFERENCED DOCUMENTS**

The documents referred to in this Standard are listed in Appendix D.

**3 DEFINITIONS**

For the purpose of this Standard the definitions below apply.

**3.1 Added filler**

A fine granular material, the majority of which passes a 0.075 mm sieve, which is added to an asphalt mix to supplement or modify the properties of filler in the mixture.

**3.2 Adhesion agent**

A substance used for the purpose of promoting the adhesion between a bituminous binder and aggregate. The term usually refers to adhesion in the presence of water.

**3.3 Aggregate****3.3.1 Coarse aggregate**

General term used to differentiate between various sizes of aggregate, usually material retained on a 4.75 mm sieve.