

Australian Standard[®]

**Bituminous emulsions for the
construction and maintenance
of pavements**

This Australian Standard was prepared by Committee CH/25, Bitumen and Related Products (for Roadmaking). It was approved on behalf of the Council of Standards Australia on 16 February 1996 and published on 5 May 1996.

The following interests are represented on Committee CH/25:

Australian Asphalt Pavement Association
Australian Chamber of Commerce and Industry
Australian Road Research Board
AUSTROADS
Bureau of Steel Manufacturers of Australia
New Zealand Bitumen Contractors' Association
The Works Consultancy Services, New Zealand
Transit New Zealand

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AS 1160—1996

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**Bituminous emulsions for the
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of pavements**

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CH/25 on Bitumen and Related Products (for Roadmaking) to supersede AS 1160—1988 (in part).

This Standard is the result of a consensus among representatives on the Joint Committee to produce it as an Australian Standard.

The objective of this Standard is to provide the users of bituminous emulsions with specifications for bituminous emulsions suitable for use in the construction and maintenance of pavements.

This Standard underwent a revision in 1994 with the objective of separating the Appendices and incorporating them within the AS 2341 series.

Changes to this Standard include the following:

- (a) Incorporation of a suffix to indicate the presence of polymeric material in bituminous emulsions.
- (b) Specification of setting times for high bitumen content emulsions as CRS and to reduce their non-aqueous volatile levels.
- (c) An alternative test method for CAM grade bituminous emulsions.

Users of this Standard who have relevant information are requested to supply this to the Association for consideration by the appropriate committee.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

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STANDARDS AUSTRALIA

Australian Standard

Bituminous emulsions for the construction and maintenance of pavements

1 SCOPE This Standard specifies requirements for anionic and cationic bituminous emulsions suitable for use in the construction and maintenance of pavements.

2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

- 2008 Residual bitumen for pavements
- 2341 Methods of testing bitumen and related roadmaking products
- 2341.2 Method 2: Determination of dynamic (coefficient of shear) viscosity by flow through a capillary tube
- 2341.3 Method 3: Determination of kinematic viscosity by flow through a capillary tube
- 2341.4 Method 4: Determination of dynamic viscosity by rotational viscometer
- 2341.5 Method 5: Determination of apparent viscosity by 'Shell' sliding plate micro-viscometer
- 2341.8 Method 8: Determination of matter insoluble in toluene
- 2341.9 Method 9: Determination of water content (Dean and Stark)

AS/NZS

- 2341.22 Method 22: Determination of particle charge
- 2341.23 Method 23: Determination of residue from evaporation
- 2341.24 Method 24: Calculation of non-aqueous volatiles content (by difference)

AS

- 2341.25 Method 25: Determination of consistency

AS/NZS

- 2341.26 Method 26: Determination of sieve residue
- 2341.27 Method 27: Determination of sedimentation

AS

- 2341.28 Method 28: Determination of stone coating ability and water resistance
- 2341.29 Method 29: Determination of breaking behaviour by setting time
- 2341.30 Method 30: Recovery of residue from bituminous emulsion

3568 Oils for reducing the viscosity of residual bitumen for pavements

ASTM

- D244 Test methods for emulsified asphalts

BS

2586 Specification for glass and reference electrodes for the measurement of pH

STPTC Standard methods for testing tar and its products

Published by the Standardization of Tar Products Test Committee

3 DEFINITIONS For the purpose of this Standard, the definitions below apply.

3.1 Anionic emulsion—a type of bituminous emulsion in which the dispersed particles comprise a bituminous binder and are negatively charged.

3.2 Bituminous binder—a binder predominantly comprised of bitumen.