

AS 2341.26:2020



# Methods of testing bitumen and related roadmaking products

Method 26: Determination of sieve residue



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- Australian Asphalt Pavement Association
- Australian Chamber of Commerce and Industry
- Australian Institute of Petroleum
- Australian Road Research Board
- Austrroads
- AustStab
- Department of Transport, Vic
- Engineers Australia
- National Association of Testing Authorities Australia

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# **Methods of testing bitumen and related roadmaking products**

## **Method 26: Determination of sieve residue**

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## Preface

This Standard was prepared by the Australian Members of Joint Standards Australia/Standards New Zealand Committee CH-025, Bitumen and Related Products (for Roadmaking) to supersede AS/NZS 2341.26—2002.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this document as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this document is to quantify the presence of coarse binder particles in a bituminous emulsion by measuring the mass of the particles retained on a specified sieve.

The major changes in this edition are as follows:

- (a) The recommended diameters for the 150  $\mu\text{m}$  and 710  $\mu\text{m}$  sieves used in the document have been made the same.
- (b) The amount of emulsion required to be passed through the 710  $\mu\text{m}$  sieve has been reduced from approximately 2 L to approximately 200 g.
- (c) The scope of the document has been increased to include conventional bituminous emulsions, high binder content bituminous emulsions and polymer modified bituminous emulsions.

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## NOTES

# Australian Standard®

## Methods of testing bitumen and related roadmaking products

### Method 26: Determination of sieve residue

#### 1 Scope

This document sets out a method for determining the quantity of coarse particles in a bituminous emulsion sample that is retained on a specified sieve. It is applicable for use with conventional bituminous emulsions, high binder content bituminous emulsions and polymer modified bituminous emulsions that have sieve residue results of less than or equal to 1 %.

**WARNING — THE USE OF THIS STANDARD MAY INVOLVE HAZARDOUS MATERIALS, OPERATIONS AND EQUIPMENT. THIS STANDARD DOES NOT PURPORT TO ADDRESS ALL OF THE SAFETY ISSUES ASSOCIATED WITH ITS USE. IT IS THE RESPONSIBILITY OF THE USER OF THIS STANDARD TO ESTABLISH APPROPRIATE SAFETY AND HEALTH PRACTICES, AND TO DETERMINE THE APPLICABILITY OF REGULATORY LIMITATIONS PRIOR TO USE.**

#### 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/NZS 2341.1, *Methods of testing bitumen and related roadmaking products, Part 1: Precision data — Definitions*

AS/NZS 2341.21, *Methods of testing bitumen and related roadmaking products, Method 21: Sample preparation*

ISO 3310-1, *Test sieves — Technical requirements and testing — Part 1: Test sieves of metal wire cloth*

#### 3 Terms and definitions

For the purposes of this document, the terms and definitions in AS/NZS 2341.1 and the following apply.

##### 3.1

##### **bituminous binder**

binder predominantly comprised of bitumen

##### 3.2

##### **bituminous emulsion**

dispersion of one liquid within another where the dispersed phase is usually a bituminous binder and the continuous phase is usually water

##### 3.2.1

##### **anionic bituminous emulsion**

type of bituminous emulsion in which the bituminous binder particles are negatively charged

##### 3.2.2

##### **cationic bituminous emulsion**

type of bituminous emulsion in which the bituminous binder particles are positively charged

##### 3.2.3

##### **conventional bituminous emulsion**

bituminous emulsion in which the percentage by mass of the bituminous binder in the emulsion is of the order of 60 % or below