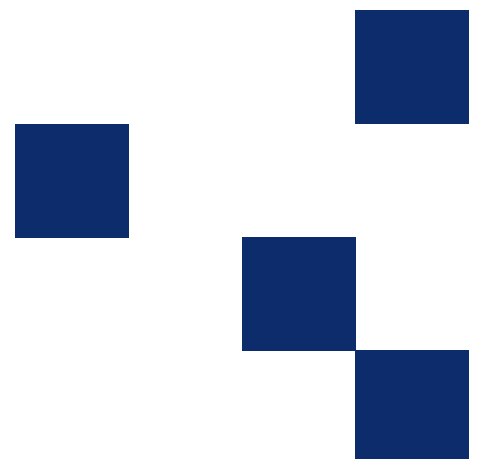




Test method T600

Methods of sampling materials used in
bituminous sealing works

NOVEMBER 2012



Revision Summary

Ed/Rev Number	Clause Number	Description of Revision	Authorisation	Date
		Reformatted and Revision Summary Added. Safety Notes Added	D.Dash	Jan 2000
Ed 2/ Rev 0	All	Reformatted RMS template	J. Friedrich	November 2012

Note that Roads and Maritime Services is hereafter referred to as 'RMS'.

The most recent revision to Test method T600 (other than minor editorial changes) are indicated by a vertical line in the margin as shown here.

Test method T600

Methods of sampling materials used in bituminous sealing works

1. Scope

This test method sets out the procedure for sampling of materials used in bituminous works.

2. Safety Notes

A poster describing the action to be taken in the event of bitumen burns must be displayed in the laboratory in the vicinity of the bitumen pouring area(s).

Use either tongs or heat resisting gloves when handling hot bitumen. Loosen or puncture lids before heating containers. Examine cold samples for signs of water. Remove all visible water. Wear spectacles when heating samples suspected of containing water. Cleaning solvents such as toluene may be toxic, handle such solvents in a fume cupboard, consult safety data sheet.

3. Purpose

The purpose of sampling is to obtain samples which are truly representative of the material supplied. Samples may be taken for any or all of the following reasons:

- To assess a material
- To represent a delivery
- To detect any variation within a delivery

4. Sampling

Sampling of each of the materials shall be carried out in accordance with the appendices listed below. Each delivery of the material shall be sampled unless otherwise stated.

Appendix	Material
I	Aggregate
II	Oils for Reducing the Viscosity of Bitumen
II	Scrap Rubber or other Granular Additives
IV	Bitumen
V	Cutback Bitumen
VI	Scrap Rubber Bitumen
VII	Polymer Modified Binders
VIII	Tar
IX	Adhesion Agents
X	Bitumen Emulsion

5. Labelling

Samples shall be firmly packed for transport to the testing laboratory and shall be clearly identified by markings on the body and lid of the container. For samples of dry materials the sample identification shall also be placed inside the container.

The following information shall be shown on the container or label:

- (a) Type of Material
- (b) Identification Mark
- (c) Date of Sampling

Further information required for identification of the samples shall be supplied on a separate sampling form. The additional information shall include the following:-

- (a) Supplier
- (b) Place of Sampling
- (c) Quantity of material represented by sample
- (d) Type and identifying number of container or vehicle from which the sample was taken
- (e) Name of sampler

Appendix I

Sampling of Aggregates Used in Bituminous Sealing Works

Scope

This Appendix sets out methods for the sampling of aggregates used in bituminous works.

Test Requirements, Procedure and Reporting

The procedure is identical with the method described in AS1141.3, except that:

- (1) The aggregate sample submitted for testing, where possible, is not to be precoated.
- (2) If the aggregates are to be precoated or purchased already precoated, a sample of the precoating material to be used shall be submitted at the same time as the aggregate samples. The sample of precoating material shall be representative of the material to be used if the aggregate is accepted.

Appendix II

Sampling of Oils for Reducing the Viscosity Of Bitumen

Scope

This Appendix sets out the methods for the sampling of oils for reducing the viscosity of bitumen.

Test Requirements, Procedure and Reporting

The procedure is identical with the method described in AS3568, except that:

- (1) Unless otherwise specified, the Superintendent may require the use of any or all of the methods of sampling the Superintendent considers necessary to evaluate the material.
- (2) When sampling from bulk storage the initial 4 L of material withdrawn from each cock shall be discarded.
- (3) Samples are to be approximately 2 L.
- (4) When sampling from drums only samples of the same batch are to be combined.
- (5) Where the drums represent different batches, samples are to be kept separate and tested separately.
- (6) Suitable gloves shall be worn when sampling and while sealing containers.
- (7) Suitable safety glasses and/or face shields shall be worn while sampling.

Appendix III

Sampling of Scrap Rubber or Other Granular Additives

Scope

This Appendix sets out the methods for the sampling of scrap rubber and other granular additives.

Apparatus

- (a) Scoop of suitable size
- (b) 4 x 1 L tins.

Procedure

Sampling from a Single Run or Batch

Select at random, from the run or batch, a number of bags (or containers) equal to but not less than the cube root of the number of bags representing the delivery or batch.

- (a) From each selected container take a sample increment of not less than 0.5 kg.
- (b) Combine the sample increment to form a bulk sample of not less than 4 kg.

Note: In the case of a small consignment, the size of samples shall be increased as necessary to yield a combined sample of at least 4 kg.

Thoroughly mix the bulk sample before testing.

Sampling from a Non-uniform Run or Batch

When the material is not obviously from a single run or batch, a full testing program is carried out on each sample. In this event, the size of each sample shall be at least 4 kg.

Appendix IV

Sampling of Bitumen

Scope

This Appendix sets out methods for the sampling of bitumen also termed residual bitumen.

Test Requirements, Procedure and Reporting

The procedure is identical with the method described in AS2008, except that:

- (1) Unless otherwise specified, the Superintendent may require the use of any or all of the methods of sampling the Superintendent considers necessary to evaluate the material.
- (2) Suitable gloves shall be worn when sampling and while sealing containers.
- (3) Safety glasses and/or face shields shall be worn while sampling.

Appendix V

Sampling of Cutback Bitumen

Scope

This Appendix sets out methods for the sampling of cutback bitumen and the bitumen and oil distillates used in the preparation of cutback bitumen.

Test Requirements, Procedure and Reporting

The procedure is identical with the method described in AS2157, except that:

- (1) Unless otherwise specified, the Superintendent may require the use of any or all of the methods of sampling the Superintendent considers necessary to evaluate the material.
- (2) Material is to be thoroughly mixed prior to loading into rail tankers, road tankers, sprayers or drums.
- (3) The initial 4 L of material withdrawn from each cock shall be discarded.
- (4) Test samples are to be approximately 2 L.
- (5) Suitable gloves shall be worn when sampling and while sealing containers.
- (6) Suitable safety glasses and/or face shields shall be worn while sampling.

Appendix VI

Sampling of Scrap Rubber Bitumen

Scope

This Appendix sets out the methods for the sampling of scrap rubber bitumen.

Test Requirements, Procedure and Reporting

The procedure is identical with the method described in AS2008, except that:

- (1) Unless otherwise specified, the Superintendent may require the use of any or all of the methods of sampling the Superintendent considers necessary to evaluate the material.
- (2) Suitable gloves shall be worn when sampling and while sealing containers.
- (3) Suitable safety glasses and/or face shields shall be worn while sampling.

Appendix VII

Sampling of Polymer Modified Binders

Scope

This Appendix sets out the methods for the sampling of polymer modified binders.

Test Requirements, Procedure and Reporting

The procedure is identical with the method described in AS2008, except that:

- (1) Unless otherwise specified, the Superintendent may require the use of any or all of the methods of sampling the Superintendent considers necessary to evaluate the material.
- (2) The Superintendent may from time to time direct three samples to be taken from one tanker load. One at the beginning of the discharge (after between 4 and 100 L have been allowed to flow through the lines) one at the middle of the discharge and one when nearing the end.
- (3) Suitable gloves shall be worn when sampling and while sealing containers.
- (4) Suitable safety glasses and/or face shields shall be worn while sampling.

Appendix VIII

Sampling of Tar

Scope

This Appendix sets out the methods for the sampling of tar.

Test Requirements, Procedure and Reporting

The procedure is identical with the method described in AS1057, except that:

- (1) Unless otherwise specified, the Superintendent may require the use of any or all of the methods of sampling the Superintendent considers necessary to evaluate the material.
- (2) When sampling from bulk storage the initial 4 L of material withdrawn from each cock shall be discarded.
- (3) Road sprayers are to be included along with rail tankers and road tankers as a vessel from which a sample may be taken.
- (4) Suitable gloves shall be worn when sampling and while sealing containers.
- (5) Suitable safety glasses and/or face shields shall be worn while sampling.

Appendix IX

Sampling of Adhesion Agents

Scope

This Appendix sets out the methods for the sampling of adhesion agents.

Test Requirements, Procedure and Reporting

The procedure is identical with the method described in AS3568, except that:

- (1) Unless otherwise specified, the Superintendent may require the use of any or all of the methods of sampling the Superintendent considers necessary to evaluate the material.
- (2) The viscosity of each of the samples may be determined in order to detect stratification. They shall be combined and thoroughly mixed to form a composite sample.
- (3) When sampling from bulk storage the initial 4 L of material withdrawn from each cock shall be discarded.
- (4) Test samples are to be approximately 2 L.
- (5) When sampling from drums only samples of the same batch are to be combined.
- (6) Suitable gloves shall be worn when sampling and while sealing containers.
- (7) Suitable safety glasses and/or face shields shall be worn while sampling.

Appendix X

Sampling of Bitumen Emulsion

Scope

These procedures apply to the sampling of bitumen and oil distillates used in the emulsification process.

Test Requirements, Procedure and Reporting

The procedure is identical with the method described in AS1160, except that:

- (1) Unless otherwise specified, the Superintendent may require the use of any or all of the methods of sampling the Superintendent considers necessary to evaluate the material.
- (2) Samples shall be tested in the Authority's laboratory within 14 days of the date of sampling.
- (3) Where the sample is to represent the average of the bulk of the material, equal portions of at least 1 L shall be taken from each of the selected containers by siphoning, or by tube or thief sampling device; the portion shall be drawn from the centre of the drum. The separate portions shall then be bulked and mixed thoroughly by stirring in a vessel composed of material similar to that of the sample container. A 2 L portion, constituting the sample shall then be poured off immediately into the sample container.
- (4) The first portion shall be taken from about 0.3m above the bottom of the container, the second from a level at half the depth of the emulsion, and the third from about 0.3 m below the surface.
- (5) Rapid-setting emulsion samples shall be placed in cleaned and oven dried glass bottles or wide-mouth glass jars which have plastic or cork-lined screw-caps.
- (6) Further samples may be taken at any time within 90 days of the date of manufacture or within 80 days of the despatch from the supplier's works, whichever is the later, to check the storage properties of the bitumen emulsion
- (7) Suitable gloves shall be worn when sampling and while sealing containers.
- (8) Suitable safety glasses and/or face shields shall be worn while sampling.