

Sampling and examination of bituminous mixtures for roads and other paved areas —

Part 100: Methods for sampling for analysis

ICS 93.080.20

Committees responsible for this British Standard

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- British Civil Engineering Manufacturers' Association
- County Surveyor's Society
- Department for Transport — Highways Agency
- Highways Agency — Safety Standards and Research
- Institute of Asphalt Technology
- Institution of Civil Engineers
- Institution of Highways and Transportation
- Mastic Asphalt Council Ltd.
- MoD — UK Defence Standardization
- Quarry Products Association
- Refined Bitumen Association Ltd.
- Scottish Office — Roads Directorate
- Society of Chemical Industry
- TRL — Transport Research Laboratory
- United Kingdom Accreditation Service
- Co-opted members

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Contents

	Page
Committees responsible	Inside front cover
Foreword	ii
1 Scope	1
2 Definitions	1
3 General principles	1
4 General apparatus	1
5 Minimum mass of bulk samples	2
6 Methods of obtaining bulk samples from all materials except coated chippings	2
7 Other methods of obtaining bulk samples	4
8 Sampling coated chippings from stockpiles	5
9 Sample-size reduction of bulk sample	5
10 Certificate of sampling	5
Annex A Typical sampling equipment	6
Annex B Recommendations on the rate of sampling	8
Annex C Typical certificate of sampling	8
Figure A.1 — Typical sampling scoop for coated chippings	6
Figure A.2 — Sampling equipment	7
Figure A.3 — Sampling shovel	7
Table 1 — Minimum mass of bulk sample for mixtures with different values of <i>D</i> except coated chippings	2
Table 2 — Number of increments when sampling during discharge from a mixing plant	3
Publications referred to	9

Foreword

This part of BS 598 has been prepared by Subcommittee B/510/1. It supersedes BS 598-100:1987 which is withdrawn.

This new edition of BS 598-100 incorporates technical changes only. It does not reflect a full review or revision of the standard, which will be undertaken in due course.

This edition introduces a number of changes associated with the introduction of the European standards for aggregates and the associated test method standards. These changes include the use of new sieve sizes which are used both for the definition of the actual mixtures and their size designations. This edition of BS 598 has therefore been amended to align with BS EN 13043, which was implemented in the UK on 01/01/2004. Detailed guidance and advice on the changes may be found in PD 6682-2 and PD 6682-9.

Due to the different factors to be considered when sampling and testing mastics for roads and other paved areas it has been decided to continue publishing the requirements for mastics as a separate British Standard, i.e. BS 5284.

It has been assumed in the drafting of this part of BS 598 that the execution of its provisions is entrusted to appropriately qualified and experienced people.

It is recognized that safety during sampling is of great importance. It should be noted that the work of sampling may be subject to the provisions of the Health and Safety at Work etc. Act 1974 [1], the Factories Act 1961 [2] (as amended by the Health and Safety at Work etc. Act 1974) and in particular the Construction Regulations 1961 [3].

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 9 and a back cover.

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1 Scope

This part of BS 598 describes methods for sampling all types of coated bituminous mixtures including coated chippings, but excluding mastics and slurry seal, used for roads and other paved areas.

NOTE The titles of the publications referred to in this standard are listed on page 9.

2 Definitions

For the purposes of this part of BS 598 the following definitions apply.

2.1

increment

portion of the material, taken by a single operation, which may by itself, or in combination with other similar portions, provide a bulk sample

2.2

bulk sample

increment, or a combination of increments, taken from a mass of material. The mass represented may be a lorry-load, more than one lorry-load, an area of laid material or a quantity of stockpiled material

2.3

laboratory sample

whole of, or representative part of, the bulk sample forwarded to the laboratory for testing

2.4

aggregate size

designation of aggregate in terms of lower (d) and upper (D) sieve sizes expressed as d/D

NOTE This designation accepts the presence of some particles which are retained on the upper sieve (oversize) and some which pass the lower sieve (undersize). The lower sieve size (d) can be zero.

3 General principles

Samples of bituminous road materials are normally required for one or more of the following three purposes:

- a) assessment of the constituent proportions of the material for production quality control;
- b) judgement of compliance with the specification for the material;
- c) establishment of some property of a particular quantity or area of material.

NOTE 1 Before any sampling is undertaken, the purpose of sampling should be considered and an appropriate sampling procedure chosen. To assist in this choice, a list of advantages and disadvantages is included with each method.

NOTE 2 When a specific property, e.g. moisture content, is to be examined it may be important to seal the containers during transportation and storage.

NOTE 3 Annex B gives recommendations on the rate of sampling.

4 General apparatus (see 6.4.2 and 7.2.1 for specific apparatus)

4.1 *Sampling pans, shovels and trays*, maintained at all times in a clean and serviceable condition.

NOTE 1 When sampling some bituminous materials it is advantageous to coat the equipment lightly with diesel or similar oil. If this is done the equipment should be drained for at least 30 s before use.

NOTE 2 It is useful to fabricate any special equipment in such a way that cleaning may be assisted by heating.

4.2 *Sampling shovel* as shown in Figure A.3.

4.3 *Sampling pan of low carbon steel*, approximately 2 mm thick, and cylindrical in shape with a diameter of 240 ± 10 mm and a depth of 75 ± 5 mm.

NOTE The pan is operated in such a way that it can be passed transversely through the centre part of the curtain of material being discharged directly from a mixer or from a storage hopper.