



Standard Test Procedures Manual

Section: SAMPLING

Subject: SAMPLING ASPHALT MIXES

1. SCOPE

1.1. Description of Test

These methods cover sampling of bituminous paving mixes at the points of manufacture, storage or delivery.

2. APPARATUS AND MATERIALS

2.1. Number of Samples

The number of samples to be obtained by one of the methods described below depends on the criticality and variability of the property to be measured. The number of samples should be sufficient to provide the desired confidence in test results.

Unless otherwise specified, sampling frequency shall be:

For routine production control, take one sample for every 3 hours of plant operation.

For check testing of field laboratory results, submit samples to district or central laboratories as described in STP 101.

Sampling intervals or locations should be selected by a random method and should be clearly designated before samples are selected.

3. PROCEDURE

3.1. Sampling

3.1.1. Sampling From Conveyor Belt

Stop the conveyor belt carrying bituminous mix and insert the templates which conform to the shape of the belt.

Space the templates so that the material contained between them will yield a sample of the required weight shown in Table I.

Carefully scoop all materials between the templates into a suitable container.

3.1.2. Sampling From Paver

Stop the paver carrying bituminous mix and scoop the bituminous material into a suitable container. Scoop enough material so that the sample can be split into two 2500 gram samples. Samples can be obtained from the paver at designated lots. Sampling from the paver is primarily used to obtain samples for Abson testing.

3.1.3. Sampling From Truck Transports

Select the truck unit to be sampled by a random method.

Obtain at least three approximately equal increments selected at random from the unit being sampled and combine to form a field sample of the quantity shown in Table I.

The increments may be obtained by placing containers in the transport at the appropriate time to catch the increments with a scoop or shovel.

3.1.4. Sampling From Roadway Prior to Compaction

Select the areas to be sampled from the material in place, by a random method.

Clearly mark the specific areas from which each increment is to be removed. Templates placed before the mixture is spread will be a definite aid in securing approximate increment weights.

Obtain at least three approximately equal increments selected at random from the area being sampled and combine to form a field sample of the quantity shown in Table I.

Take all increments from the roadway for the full depth of the material, taking care to exclude any underlying material.

TABLE I: GUIDE FOR SAMPLE SIZE

Maximum Nominal Size of Aggregate	Approximate Weight Of Uncompacted Mixture (kg)	Approximate Area of In-Place Mixture (cm ²)
2.00 mm	2	250
4.00 mm	2	250
9.00 mm	4	250
12.50 mm	5	500
18.00 mm	7	700
25.00 mm	10	1000
40.00 mm	12	1000
50.00 mm	20	1500

3.1.5. Sampling From Roadway After Compaction

Samples shall be collected in accordance with STP 204-5, ASPHALT CONCRETE SAMPLES OBTAINED BY CORING.

3.2. Shipping

Transport samples in containers so constructed as to prevent loss or contamination to any part of the sample during shipment.

Samples shall have individual identification attached giving the information required by the sample user. Typical information for plant mixed samples should include field test results such as contract number, pit file, data, stockpile number, sample number, control section, date sampled and any other pertinent information.

Samples taken from roadway should include such information as station number and transverse location in pavement, also whether sampled from completed pavement or windrow, quantity represented, date, tests required, and by whom submitted, etc.

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4. ADDITIONAL INFORMATION

4.1. General Sampling

Sampling is equally important as the testing and the sampler must take every precaution to obtain samples that will yield an acceptable estimate of the nature and conditions of the materials which they represent.

Samples for control testing and development of preliminary data are obtained by the lab person or plant inspector.

The materials shall be inspected to determine discernible variations and the contractor will provide necessary equipment needed for safe inspection and sampling.

4.2. References

ASTM D979

Standard Test Procedures Manual

STP 103

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APPROVAL SHEET

New Revision X Date of Previous Document 92-07-25

Effective Date: 93-03-26

Description of Revision (Reason for Revision):

- Procedure for sampling from paver has been added. This procedure was added for samples taken for Abson testing.

Review/Implementation Process:

- Reviewed by the Lab Supervisors Committee and End Product Specification Committee.

Other Manuals/Policies Affected:

Nil

Follow Up/Training Required:

Nil

Comments/Concerns/Implications (Budget/Environment/Stakeholders):

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Electronic File Updated 93-04-28
Update Mailed - -