
Test Procedure for**SAMPLING BITUMINOUS MIXTURES****TxDOT Designation: Tex-222-F****Effective Date: April 2025**

1. SCOPE

- 1.1 Use this test method to sample mixtures of bituminous materials. Several sampling procedures are described.
- 1.2 The values given in parentheses (if provided) are not standard and may not be exact mathematical conversions. Use each system of units separately. Combining values from the two systems may result in nonconformance with the standard.
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2. SELECTING SAMPLES

- 2.1 Use every precaution to obtain representative samples of the bituminous mixtures, to avoid segregation, and to prevent contamination by foreign matter.
- 2.2 Attach [Form 202](#), "Identification of Material Samples," to each sample container.
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3. SAMPLE SIZE

- 3.1 When sampling any type of bituminous mixture for future laboratory testing, the minimum sample size should be enough to fill a container appropriate for the specific test type.
- 3.2 If extensive testing is desired, sample two or more containers of the material, as required. Blend all sampled materials to form a composite sample before quartering to size for laboratory tests.
- 3.3 Suggested sample sizes for common tests are listed as follows:
- Hamburg Wheel-Tracking Test, [Tex-242-F](#): 9000 g,
 - Overlay Test, [Tex-248-F](#): 20000 g,
 - Determining Density of Compacted Bituminous Mixtures, [Tex-207-F](#): 10000 g,
 - Theoretical Maximum Specific Gravity of Bituminous Mixtures, [Tex-227-F](#): 3000 g,
 - Determining Asphalt Content from Asphalt Paving Mixtures by the Ignition Method, [Tex-236-F](#): 4000 g.
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4. SAMPLING PROCEDURES

- 4.1 *Sampling Plant-Mixed Bituminous Mixtures:*
- Note 1**—Provide a proper sampling stand and take adequate safety precautions to prevent bodily injury.
- 4.1.1 *Method A*—Follow these steps to obtain samples from trucks or railroad cars.
- 4.1.1.1 Obtain multiple representative samples from the truck bed or railroad car.
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- 4.1.1.1.1 View the mix after loading is complete. Note areas of obvious segregation and avoid taking samples from these locations.
- 4.1.1.1.2 Take all necessary safety precautions when obtaining these samples. Avoid walking or standing on the hot mix while taking these samples.
- 4.1.1.2 Select a minimum of three sections in the truck bed or railcar. Dig a minimum of 12 in. (300 mm) below the surface and remove at least 10 lb. (4.5 kg) of material from each of the sections.
- 4.1.1.3 Combine and thoroughly mix all the samples.
- 4.1.1.4 Split the combined sample into individual samples in accordance with [Tex-200-F](#).
- 4.1.1.5 Any individual samples allowed to cool to ambient temperatures and to be transported to another laboratory for testing must not exceed a thickness greater than 3 in.
Note 2— Recommended sampling containers are paper bags or cardboard boxes.
- 4.1.2 *Method B*—Follow these steps to obtain samples from a plant discharge chute or silo.
- 4.1.2.1 Clean the bucket of all materials that may contaminate the sample.
- 4.1.2.2 Fill the bucket of a front-end loader with mix directly from the discharge chute.
- 4.1.2.3 Take samples from several locations in the bucket to form a composite minimum sample of 30 lb. (13.5 kg).
- 4.1.2.4 Split the combined sample into individual samples in accordance with [Tex-200-F](#).
- 4.1.2.5 Any individual samples allowed to cool to ambient temperatures and to be transported to another laboratory for testing must not exceed a thickness greater than 3 in.
Note 3— Recommended sampling containers are paper bags or cardboard boxes.
- 4.2 *Obtaining Bituminous Mixtures from Stockpiles at the Plant:*
- 4.2.1 Obtain equal quantities of the mixture from holes dug into points near the top, middle, and bottom of the stockpile.
- 4.2.1.1 Combine and thoroughly mix all the samples.
- 4.2.1.2 Split the combined sample into individual samples in accordance with [Tex-200-F](#).
- 4.3 *Sampling Bituminous Mixtures from Windrows:*
- 4.3.1 Take a representative sample of the windrow at intervals of not more than 500 ft. (152 m).
- 4.3.1.1 Whenever practical, secure samples from a complete cross-section of material approximately 1 ft. (100 mm) wide.
- 4.3.1.2 When the full depth of the cross-section is sampled, take care to exclude any foreign matter.
- 4.3.2 Combine and thoroughly mix all the samples.
- 4.3.3 Split the combined sample into individual samples in accordance with [Tex-200-F](#).

- 4.3.4 Any individual samples allowed to cool to ambient temperatures and to be transported to another laboratory for testing must not exceed a thickness greater than 3 in.

Note 4—Recommended sampling containers are paper bags or cardboard boxes.

4.4 *Sampling Bituminous Mixture Slabs from the Roadway:*

- 4.4.1 Use the sharp, narrow cutting blade of a mattock (or other means) to pry loose a sample approximately 457 mm (18 in.) square from the roadway pavement. To prevent cracking, take extra care in removing and transporting the sample.
- 4.4.2 Place the sample between two clean pieces of 19-mm (0.75-in.) thick plywood, with the smoothest, cleanest surface of the sample down, and tie securely with heavy cord. Transport the sample with the smooth side remaining down.
- 4.4.3 To prevent evaporation of the moisture of a pavement sample, or the hydrocarbon volatiles of cold-laid mixtures, wrap the sample in aluminum foil.

4.5 *Sampling Loose Material Behind the Laydown Machine:*

- 4.5.1 Sample after approximately half of the truck load has passed through the laydown machine, either from various points in front of the screed on the machine or from various points immediately behind.
- 4.5.2 Any individual samples allowed to cool to ambient temperatures and to be transported to another laboratory for testing must not exceed a thickness greater than 3 in.
- Note 5**—Recommended sampling containers are paper bags or cardboard boxes.

4.6 *Sampling Asphalt Patching Mix:*

- 4.6.1 Approximately 40 lb. (18 kg) of sample is required for specification tests on this material.

5. ARCHIVED VERSIONS

- 5.1 Archived versions are available.