

TEX-222-F

Sampling Bituminous Mixtures



Why

Proper procedures for sampling representative materials from what is being delivered and placed on the roadway for laboratory testing.

Testing samples that are representative of what is being placed on the roadway is important to ensure quality material is delivered to the project.



When

Sampling of materials for specification compliance and acceptance is required during production. Samples may also be obtained during hauling, placement at the project site, or at the stockpile.



How

Sampling Locations

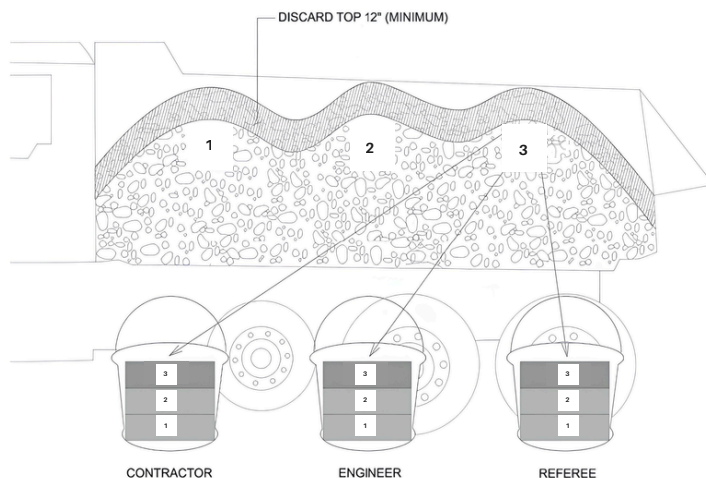
1. Plant-Mixed Mixtures
2. Stockpile at the plant
3. Windrows
4. Slabs from the roadway
5. Behind the laydown machine (paver)

Sample Size

- The minimum sample size should be enough to fill a container appropriate for the specific test type.

Sampling Plant-Mixed Bituminous Mixtures

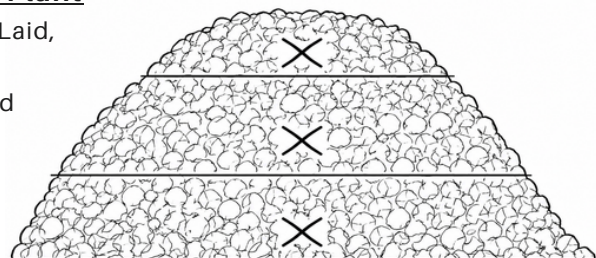
- Select at least three truck bed or railcar sections. Use a metal square-head shovel to dig at least 12 in. deep to expose the sampling area. Collect at least 10 lb. of material from each section for each container. For quality control and assurance tests, use at least three containers, assigning one each to the Engineer, Contractor, and Referee.



QUICK FACTS: LEVEL 1A

Obtaining Bituminous Mixtures from Stockpiles at the Plant

- Stockpiles of Limestone Rock Asphalt Mixtures, Hot-Mix, Cold-Laid, and Recycled Materials.
- Obtain equal quantities of the mixture from the top, middle, and bottom of the stockpile.
- Combine and thoroughly mix all the samples.



Sampling Bituminous Mixtures from Windrows

- Sample at intervals of no more than 500 ft.
- When the full depth of the cross-section is sampled, take care to exclude any foreign matter.

Sampling Bituminous Mixture Slabs From the Roadway

- Use the sharp, narrow cutting blade of a mattock (or other means) to pry loose a sample.
- Place the sample between two clean pieces of 0.75 in. thick plywood, with the smoothest, cleanest surface of the sample down.

Sampling Loose Material Behind the Laydown Machine

- Sample taken after about half the truck load passes through the laydown machine, either from in front of the screed or behind.

Reducing Samples to Storage and Testing Size

- Thoroughly blend the mix on a clean surface to create a uniform composite sample. Evenly spread the blended sample across the surface to a consistent thickness.
- Use a scoop to collect material from the entire surface to obtain the appropriate sample test size.

Storage of Samples

- 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.