



# 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
  - Method A - Trucks
  - Method B - Front-end loader
2. Stockpiles at the plant
3. Windrows
4. Cores from the roadway
5. Behind the laydown machine (paver)

#### Sampling

- Obtain representative samples to avoid segregation and contamination of the mixture.

#### Sample Size

- Minimum amount of mixture needed to sample is determined by the applicable specification and testing procedures.
- Amount of mixture will vary by each testing procedure and the number of tests required.
- The diameter of roadway cores is specified by specification.

#### Sample Splitting

- Combine all of the mixture sampled and thoroughly mix it all together.
- Split the material into individual samples in accordance with Tex-200-F.

#### Transporting Samples

- When mix is allowed to be cooled down and brought to another laboratory for testing, place the mixture in paper bags or cardboard boxes.
- Do not exceed a thickness of three inches in any of these containers.

 **QUICK FACTS: LEVEL 1A****Plant-Mixed Mixtures**

- Method A - Sampling from Trucks
  - *Use a proper sampling stand, following all safety precautions.*
  - *Select a minimum of three sections.*
  - *Divide the sample size by three.*
  - *Dig a minimum of 12 inches below the surface and remove the amount of material needed from each section.*
- Method B - Sampling from a Front-End Loader
  - *Clean the bucket of material that may contaminate the sample.*
  - *Fill the bucket of the front-end loader with mix directly from the discharge chute.*
  - *Take mix from several locations in the bucket to make a composite sample of a minimum of 30 lbs.*

**Stockpiles of Mix at the Plant**

- Sample equal quantities from holes dug into points near the top, middle, and bottom of the stockpile.

**Mix from Windrows**

- Sample mixtures at intervals of no more than 500 feet.
- When possible, sample from a complete cross-section of the mixture approximately one foot wide.

**Roadway Cores**

- Take cores during the cool part of the day to minimize the possibility of damage to the cores.
- Use ice, dry ice, or carbon dioxide to cool the pavement when taking samples in full heat.
- Take a minimum of two cores from each location and wipe the surface of the cores dry with a cloth.
- When shipping to a central lab for testing, wrap the cores individually with paper or rags and pack tightly in one-gallon buckets.

**Loose Material Behind the Laydown Machine (Paver)**

- Sample after approximately half of the truck load has passed through the paver.
- Sample from different areas in front of the screed on the paver or from different areas immediately behind the paver.