

Procedure Checklist FM 1-T 168: Sampling Bituminous Paving Materials

		P	F	N/A
Sampling from the truck.				
1.	Using a square-tipped shovel, obtain approximately equal portions from at least three well-separated locations in the truck immediately after the truck completes loading and moves to an accessible position. Remove material from the surface to a depth of approximately 12". FM 1-T 168, Section 3.1.1.			
2.	Samples shall be shoveled from the truck directly into a metal bucket of approximately three gallons in size. The asphalt mix shall be transported back to the laboratory in the bucket. FM 1-T 168, Section 3.1.1. Storage boxes for dense-graded mixes only may be filled directly at the truck sampling location. FM 1-T 168, Section 3.1.2, Note 1. This note does not apply to open-graded mixtures.			
3.	Silicone coated non-stick boxes must be used for all polymer modified mixtures. FM 1-T 168, Section 3.1.2, Note 2.			

For dense-graded mixtures only.

1.	Place the sample on either brown butcher paper or silicone coated non-stick paper. Silicone coated non-stick paper must be used for all polymer modified mixtures. Recombine by rolling to reduce segregation. FM 1-T 168, Section 3.1.2.1.			
2.	With the scoop on the paper, begin at the edge of the pile and scoop the correct mass needed for the first Superpave Gyrotory Compactor (SGC) specimen. Scoop straight through the center of the pile until the desired amount of mix is obtained. FM 1-T 168, Section 3.1.2.2.			
3.	Recombine the remainder of the mix and repeat the above procedure to obtain the number of SGC specimens needed. FM 1-T 168, Section 3.1.2.3.			
4.	Recombine the remainder of the mix and insert the metal quartering device into the mix. FM 1-T 168, Section 3.1.2.4.			
5.	With the scoop on the paper, scoop the correct mass needed for the maximum specific gravity test from opposite quarters. Scoop straight towards the center of the pile and obtain approximately equal amounts from both quarters. FM 1-T 168, Section 3.1.2.4.			
6.	With the scoop on the paper, scoop the correct mass needed for the extraction/gradation test from the remaining two quarters. Scoop straight towards the center of the pile and obtain approximately equal amounts from both quarters. The sample can be scooped directly into the tared ignition oven basket or scale pan. FM 1-T 168, Section 3.1.2.5.			
7.	Retain the remainder of the mix until testing is complete. With the Engineer's approval, this remaining material can be used to test as the QC sample to replace the material in the malfunctioned test. FM 1-T 168, Section 3.1.2.6.			
8.	Obtain representative samples from the remaining buckets for the VT and RT box samples. Label each box and store in a secure location. FM 1-T 168, Section 3.1.3.			

For open-graded mixtures only.

1.	Empty the bucket or sampling container by flipping it over and straight down onto a clean sheet of silicone coated non-stick paper in one quick motion. Do not pour the material. Do not roll the sample material. Manipulate only enough to form a rounded pile. FM 1-T 168, Section 3.2.2.1. Silicone coated non-stick paper must be used for all open-graded mixtures. FM 1-T 168, Sections 3.2.1 and 3.2.2, Note 5. Insert the metal quartering device into the center of the pile. FM 1-T 168, Section 3.2.2.1			
2.	QC sample: With the scoop on the paper, begin at the edge of the pile and scoop the correct mass needed for the QC sample from Quarters 1 and 4. Place the material from Quarter 1 directly into the bottom basket used in the ignition furnace. Place the material from Quarter 4 directly into the top basket. FM 1-T 168, Section 3.2.2.2. Discard the remainder of Quarters 1 and 4. A trowel can be used to remove this material. FM 1-T 168, Section 3.2.2.3. The material remaining in Quarters 1 and 4 can be placed in a silicone coated non-stick box. With the Engineer's approval, this material can be used to test as the QC sample to replace the material in the malfunctioned test. FM 1-T 168, Section 3.2.2.3.			
3	Raise the quartering device and rotate approximately one-eighth turn (45 degrees). Insert the metal quartering device to divide the two remaining quarters into four sections of near equal size. FM 1-T 168, Section 3.2.2.4.			
4.	VT sample: Scoop the correct mass required from opposite Quarters 2a and 3a. Place into a silicone coated non-stick storage box. Obtain approximately one-half the total mass required for the extraction/gradation test from Quarter 2a and one-half the total mass required from Quarter 3a. Keep each quarter separated in the box with silicone coated non-stick paper. FM 1-T 168, Section 3.2.2.5.			
5.	RT sample: Scoop the correct mass required from opposite Quarters 2b and 3b. Place into a silicone coated non-stick storage box. Obtain approximately one-half the total mass required for the extraction/gradation test from Quarter 2b and one-half the total mass required from Quarter 3b. Keep each half separated in the box with silicone coated non-stick paper. FM 1-T 168, Section 3.2.2.6.			

Comparison Criteria: N/A

Remarks:

Date: _____ Technician: _____ IA Observer: _____

Technician's e-mail address: _____

Employer's / supervisor's e-mail address: _____