

Procedure Checklist

FM 1-T 030: Mechanical Analysis of Extracted Aggregate

		P	F	N/A
Washing				
1.	Empty the residual aggregate from the ignition oven baskets. Place in a pan. Weigh. The weight of the residual aggregate should not differ from the weight determined in FM 5-563 by more than 0.2%. FM 1-T 030, Section 7.2.			
2.	Determine and record the mass of the sample to the nearest 0.1 gram. FM 1-T 030, Section 7.2.			
3.	Place the residual aggregate in a container and cover it with water. FM 1-T 030, Section 7.2.			
4.	Add a sufficient amount of wetting agent to assure a thorough separation of the material finer than the No. 200 sieve from the coarser particles. FM 1-T 030, Section 7.2.			
5.	Agitate the contents of the container vigorously and immediately decant the wash water over a nest of two sieves consisting of a No. 10 or No. 8 sieve superimposed on a No. 200 sieve. FM 1-T 030, Section 7.2.			
6.	Repeat the operation until the wash water is clear. AASHTO T 30, Section 7.3.			
7.	Return all material retained on the nested sieves to the container. FM 1-T 030, Section 7.4. Do so without loss of aggregate. No reference.			
8.	Use care to limit the amount of water introduced into the bowl while cleaning the wash sieves. No reference.			
Drying				
9.	Dry the washed aggregate in the container to constant weight. FM 1-T 030, Section 7.4.			
10.	The oven used to dry the aggregate did not exceed the mixture laboratory compaction temperature $\pm 9^{\circ}\text{F}$ ($\pm 5^{\circ}\text{C}$) and was not less than $230 \pm 9^{\circ}\text{F}$ ($110 \pm 5^{\circ}\text{C}$). FM 1-T 030, Section 7.4.			
11.	Determine its mass to the nearest 0.1 gram. FM 1-T 030, Section 7.4. The aggregate was dried to a constant weight. (Less than 0.1% change in weight.) AASHTO T 30, Section 7.1.			
Determining Mineral Material Lost Due to Washing				
12.	Determine the weight of minus #200 aggregate lost by washing by subtracting the dry weight from the extracted dry weight. No reference.			
Sieving				
13.	Nest the sieves in order of decreasing size of opening from top to bottom and place the sample on the top sieve. AASHTO T 30, Section 7.5. The appropriate sieves were verified to be clean. No reference.			
14.	Pour the sample into the top sieves with care taken not to lose sample. Place lid on top. No reference.			
15.	Place the nest of sieves in the shaker and run for an appropriate period of time. AASHTO T 30, Sections 4.3, and 7.5.			
16.	Determine the cumulative weight retained for each sieve. FM 1-T 030, Section 8.1.			
17.	Determine an individual weight for the mass of material in the pan. AASHTO T 30, Section 8.1.			

18.	Add the mass of dry material passing the 75- μ m (No. 200) sieve by dry sieving to the mass removed by washing. The mass of material in the pan was added to the mass of the material lost during washing to determine the total mass of material passing the # 200 sieve. AASHTO T 30, Section 8.1.			
19.	Calculate the cumulative percent retained by taking the cumulative mass retained and dividing it by the total dry weight of sample that was attained prior to washing. AASHTO T 30, Section 8.1.			

Comparison Criteria: See Section 10 of FM 1-T 030.

Remarks:

Date: _____ Technician: _____ IA Observer: _____

Technician's e-mail address: _____

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