

Procedure Checklist

AASHTO T-112 Clay Lumps and Friable Particles in Aggregate

No.	Item	P	F	NA												
Sample Preparation																
1	Use aggregate remaining after completion of AASHTO T-11.															
2	Dry material to substantially constant mass at $230 \pm 9^\circ\text{F}$ ($110 \pm 5^\circ\text{C}$).															
3	<p>Prepare the material as follows (<i>provide the examinee with Handout T-112A at this time</i>):</p> <p>a. Fine Aggregate: Consists of particles coarser than a 1.18 mm (No. 16) sieve; minimum size of sample equal to or greater than 100 g.</p> <p>b. Coarse Aggregate: Separate into four different sizes using sieves as follows:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Size of Particles Making Up the Test Sample</th> <th style="text-align: left; border-bottom: 1px solid black;">Weight of Test Sample, Min., g</th> </tr> </thead> <tbody> <tr> <td>4.75 to 9.5 mm (No. 4 to 3/8 in.)</td> <td>1000</td> </tr> <tr> <td>9.5 to 19.0 mm (3/8 to 3/4 in.)</td> <td>2000</td> </tr> <tr> <td>19.0 to 37.5 mm (3/4 to 1 1/2 in.)</td> <td>3000</td> </tr> <tr> <td>Over 37.5 mm (1 1/2 in.)</td> <td>5000</td> </tr> </tbody> </table> <p>c. Mixtures of Fine and Coarse Aggregate: Separate into two different sizes at the 4.75 mm (No. 4) sieve, then prepare each fraction as stated in 3a and 3b above.</p>	Size of Particles Making Up the Test Sample	Weight of Test Sample, Min., g	4.75 to 9.5 mm (No. 4 to 3/8 in.)	1000	9.5 to 19.0 mm (3/8 to 3/4 in.)	2000	19.0 to 37.5 mm (3/4 to 1 1/2 in.)	3000	Over 37.5 mm (1 1/2 in.)	5000					
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Procedure																
4	Weigh the test sample and spread it in a thin layer on the bottom of the container.															
5	Cover the sample with water and soak it for 24 ± 4 hours.															
6	Roll and squeeze the particles between the thumb and forefinger and attempt to break them into smaller sizes.															
7	Do not use fingernails, hard surfaces, or other particles to assist in the breaking process.															
8	<p>Wet sieve each size fraction as follows:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Size of Particles Making Up Sample</th> <th style="text-align: left; border-bottom: 1px solid black;">Size of Sieve for Removing Residue of Clay Lumps and Friable Particles</th> </tr> </thead> <tbody> <tr> <td>Fine aggregate [retained on 1.18 mm (No. 16) sieve]</td> <td>850 μm (No. 20)</td> </tr> <tr> <td>4.75 to 9.5 mm (No. 4 to 3/8 in.)</td> <td>2.36 mm (No. 8)</td> </tr> <tr> <td>9.5 to 19.0 mm (3/8 to 3/4 in.)</td> <td>4.75 mm (No. 4)</td> </tr> <tr> <td>19.0 to 37.5 mm (3/4 to 1 1/2 in.)</td> <td>4.75 mm (No. 4)</td> </tr> <tr> <td>Over 37.5 mm (1 1/2 in.)</td> <td>4.75 mm (No. 4)</td> </tr> </tbody> </table>	Size of Particles Making Up Sample	Size of Sieve for Removing Residue of Clay Lumps and Friable Particles	Fine aggregate [retained on 1.18 mm (No. 16) sieve]	850 μm (No. 20)	4.75 to 9.5 mm (No. 4 to 3/8 in.)	2.36 mm (No. 8)	9.5 to 19.0 mm (3/8 to 3/4 in.)	4.75 mm (No. 4)	19.0 to 37.5 mm (3/4 to 1 1/2 in.)	4.75 mm (No. 4)	Over 37.5 mm (1 1/2 in.)	4.75 mm (No. 4)			
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9	Carefully remove retained particles from each sieve and dry to substantially constant weight at $110 \pm 5^\circ\text{C}$ ($230 \pm 9^\circ\text{F}$).															
10	Allow to cool and weigh to the accuracy specified for the balance in AASHTO M-231.															

