

Test Methods

Review

Test Methods

- AASHTO T11, Percentage of Material Finer than #200 by use of a wash test
 - AASHTO T27, Dry Sieve Analysis of Fine and Coarse Aggregate
 - AASHTO T11 *and* AASHTO T27, Wet Sieve Analysis of Fine and Coarse Aggregate
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Test Methods

- KM64-604, Determination of the percentage of shale in aggregate
- ASTM D 5821, Percentage of fractured particles in coarse aggregate




AASHTO T11

Materials Finer Than 75 μm
(No. 200) Sieve in Mineral
Aggregates by Washing


AASHTO T11


- AASHTO T11 is a test for determining the amount of material finer than the #200 sieve in aggregates
- Procedure B (using a wetting agent) is required by Kentucky specifications


AASHTO T11 Check List

-  Know how to obtain the correct field sample (using AASHTO T2)
-  Know how to obtain the minimum test sample mass (using AASHTO T11)
-  Know to add wetting agent ,agitate and pour over the nested sieves(#8 or #16 & #200)

**AASHTO T11
Check List**

-  Know to wash until the rinse water is clear






-  Know how to satisfactorily return the retained material to the washed sample

-  Can perform the necessary calculations




AASHTO T27

Sieve Analysis of Fine and
Coarse Aggregates

AASHTO T27 Check List

-  Know how to find the field sample mass (T2)
-  Understand the concept of reducing the field sample to a minimum test portion (T248)
-  Know condition of sample prior to analysis
-  Know how to properly nest sieves
-  Know to sieve to refusal

AASHTO T27 Check List

-  Know to weigh material retained on each sieve and record
-  Know the maximum allowable loss (0.3%)
-  Given the appropriate information, can perform the necessary calculations

AASHTO T11 / T27 (Combined)

Wet Sieve Analysis of Fine and
Coarse Aggregates

AASHTO T11 / T27

Wet Sieve Analysis of Fine and Coarse Aggregate

- This method covers a procedure for the determination of the particle size distribution of certain fine and coarse aggregate by combining the determination of the percentage of material finer than a #200 sieve and the dry sieve analysis

**AASHTO T11 / T27
Check List**

- ☞ Know the correct condition (dry) of the sample prior to the analysis
- ☞ Can obtain the original dry-sample weight
- ☞ Know how to agitate the sample and pour it over nested sieves
- ☞ Understand the need for washing the sample until the rinse water is clear.

**AASHTO T11 / T27
Check List**

- ☞ Can satisfactorily return the retained material to the sample
- ☞ Know to dry the sample to a constant weight and record that weight
- ☞ Know the maximum allowable loss of material during the sieving operation.
- ☞ Can perform the necessary calculations

KM64-604

Determination of the Percentage of Shale in Aggregate





KM64-604 Check List

- Know how to find field sample size (T2)
- Understand reducing sample to test portion size (T 248)
- Know what sieves to use for sample washing
- Know how to separate and classify shale from non-shale particles
- Know how to surface dry, weigh & calculate results

ASTM D 5821

Determining the Percentage of
Fractured Particles in Coarse
Aggregate

ASTM D 5821 Check List

-  Collect field sample (T2)
 -  Reduce sample to test portion size (T248)
 -  Wash the sample over a No. 4 sieve to remove any fines and dry
 -  Determine mass of test sample (to 1 gram)
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