QUICK FACTS: SB 101 **DRAFT**

TEX-111-E

Material Passing the No. 200 Sieve for Soils and Base Materials

Why

To sustain proper moisture levels and attain compaction, a modest quantity of fines (complying with item 247 specifications) is essential. Excessive fines can have a 'lubricating' effect on the flex base aggregate, leading to a decrease in its load-bearing capacity.

When

- Item 247

How

Equipment

- Scale
- Oven maintaining 230 ± 9°F
- Sieves
- Sample Splitter
- Water

Preparing Sample

- Sample materials in accordance with Tex-100-E
- Mix the sample thoroughly and split down to the specified weight from table 1 in the procedure.

Procedure

- Place sample in an oven at 230 ± 9°F and dry to a constant weight.
- Weigh to the nearest 0.1 g. or lb. and record the weight of sample (W_{Total})
- Soak material in water for at least 12 hours.
- Stack a No. 4 (only needed for coarser materials), No. 40 sieve onto a No. 200 sieve.
- Agitate the sample and pour the water into the stack of sieves, refill pan with water and repeat until the water runs through the sieves clear.
- Transfer the sample onto the stack of sieves and rinse under running water until the water runs clear.
- Move sample back into container and put in oven at 230 ± 9°F and dry to a constant weight.
- Weigh the dry sample to the nearest 0.1 g or lb. and record as the final weight (W_{Washed})

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Action

- Calculations
  - Use the equation to calculate the percent passing the No. 200 sieve.

$$\% \text{ Passing}_{\#200} = 100 \times \left[\frac{W_{Total} - W_{Washed}}{W_{Total}}\right]$$

$$\% \text{ Retained}_{\#200} = 100 - \% \text{ Passing}_{\#200}$$

- Report
  - Report calculations to nearest 0.1%.

