
ATTI - PERFORMANCE CHECKLIST

AASHTO T 288-23 – Determining Minimum Laboratory Soil Resistivity

- Sect.* **Sample Size**
- 4.1 1. Approximate Mass of 1500 grams Finer than #10.
- 5.1 2. The sample as received from the field shall be dried in air or a drying apparatus not exceeding 60°C (140°F).
- 5.2.1 3. **Alternate Method Using #10 Sieve:** Test sample screened through a #10 sieve. The fraction retained on the sieve shall be ground with a pulverizing apparatus until the aggregations of the soil particles are broken into separate grains.
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6.3 4. **Verification of Resistivity Meter:** Zero the resistivity meter by clamping the two leads together and adjusting the meter (if necessary). Connect the leads of the resistivity meter to the 100Ω resistor and read the meter. Repeat for 200, 500, and 900Ω resistors. If the readings are within 10% of the resistance of the resistor the meter is functioning satisfactory. If not, follow manufactures instructions to calibrate meter.
- 7.2 5. Add 150 mL of distilled water to the prepared soil. Mix the sample thoroughly and cover the test sample with a damp cloth and allow the sample to stabilize until equilibrium has been reached or allow to cure for a minimum of 12 hours.
- 7.4 6. Clean the soil box thoroughly with distilled water.
- 7.5 7. Thoroughly mix and place the sample in the soil box in layers and compact (moderate compaction with the fingers is sufficient). Trim off the excess material with the straightedge.
- 7.6 8. Measure the resistance and calculate the resistivity of the soil, and record the test value.
- 7.7 9. Remove and retain soil from the box, add 100 mL of distilled water to the sample, and mix thoroughly. Clean the soil box with distilled water prior to performing the next test.
- 7.9 10. Repeat the steps until a minimum value can be determined.