
Method of Preparing Coarse Aggregate Sample for pH and Resistivity Testing in the Laboratory

SC T 143

1. Scope

This test method outlines the procedure for preparing a sample of coarse aggregate for the purpose of testing pH and resistivity when used as backfill for MSE walls. A sample weighing 2000 grams is required.

2. Referenced Documents

2.1 ASTM Standards

D1125 Standard Test Method for Electrical Conductivity and Resistivity of Water

D1293 Standard Test Method for pH of Water

3. Apparatus

- 3.1 One gallon (3.8 litres) wide-mouth plastic jug with lid
- 3.2 Coarse filter paper (Fisher Q8 or equivalent)
- 3.3 Electronic scales or balance

4. Test Specimens

- 4.1 Select a representative sample of coarse aggregate weighing approximately 2000 grams.

5. Procedure

- 5.1 Weigh the coarse aggregate sample to the nearest gram.
 - 5.2 Place the coarse aggregate sample into the 1-gallon jug. Add an equal weight of deionized or distilled water to the sample and let stand for 30 minutes.
 - 5.3 At the end of the 30 minute period, place the lid on the jug and agitate the mixture for 3 minutes.
 - 5.4 Repeat this agitation at the 2 and 4 hour intervals.
 - 5.5 Upon completion of the 4 hour interval agitation, allow the sample to stand for 20 hours so the solids will settle out.
 - 5.6 At this time, remove a sufficient quantity of the solution and filter through a coarse filter paper to obtain the supernate to be tested for pH according to ASTM D1293 and resistivity according to ASTM D1125.
-

6. Calculations

None.

7. Report

None.
