

2026 Soil Corrosivity and Chemistry Proficiency Samples 3(A) and 4(B) Sample Instructions

Closing Date: May 14, 2026

General Information:

Treat each sample as you would treat a typical sample brought into the laboratory. Any special handling or preparation instructions are included below. Conduct tests on each of the two samples in accordance with the instructions below. Report the results of a single determination only, not the average of two or more unless specified in the test method or instructions.

Reporting the results to an extra decimal place beyond what is required by the test method is requested for statistical reasons and equates to more precise data that is available to analyze.

To permit an estimate of single-operator precision, the same operator should conduct an individual test on both samples. It is not necessary that the same person conduct all the tests in the sample round.

Leave the appropriate spaces on the data sheet blank for any tests you choose not to perform.

Requirements for AASHTO Accredited Laboratories:

AASHTO accredited laboratories are required to perform every test included in an AASHTO re:source Proficiency Sample Program sample round that is also listed in each laboratory's AASHTO Accreditation scope.

[AASHTO Accreditation Policy on PSP Participation](#)

The tests that are not listed in the laboratory's accreditation scope may also be performed, but testing is not required, and the AASHTO Accreditation Program (AAP) will not evaluate the ratings.

Sample Information:

You should receive two boxes of materials for Soil Corrosivity and Chemistry Samples 3(A) and 4(B). Each box should contain one 4-kg bag of blended soil.

Test Methods:

Determining Minimum Laboratory Soil Resistivity T288-25: Determine the minimum soil resistivity of material passing the 2.00-mm (No. 10) sieve in units of (ohm) x (cm). When preparing each test specimen, add 150-mL of distilled water to the specimen and allow the sample to cure for 12 hours. After taking the first resistivity measurement, remove and retain the soil from the box and add 100-mL of distilled water between each test until the minimum resistivity is determined. Report the resistivity to four significant digits. Do not apply a temperature correction.

Report the resistivity of the water used to prepare the specimens (optional).

Measurement of Soil Resistivity Using the Two-Electrode Soil Box G187-23: Prepare the specimen with approximately 20% moisture in accordance with the standard.

Ex. Prepare a specimen where the dry mass of the soil used is 1500 g and the amount of distilled or deionized water added is 300 g. The total sample mass is 1800 g of "saturated" material.

Determine the soil resistivity of material passing the 2.00-mm (No. 10) sieve in units of (ohm) x (cm). Report the resistivity to four significant digits and do not apply a temperature correction.

Determining pH of Soil for Use in Corrosion Testing T289-22: Using a pH meter, determine the soil pH of material passing the 2.00-mm (No. 10) sieve. Report the pH value to the nearest 0.1.

pH of Soils D4972-19(2024)e1: Using a pH meter, determine the soil pH of material passing the 2.00 mm (No. 10) sieve. Report the pH values of the soil and water slurry and the calcium chloride and soil slurry to the nearest 0.1.

Determining Water-Soluble Sulfate Ion Content in Soil T290-95:Determine the sulfate ion content by using Method A or Method B for the material passing the 2.00-mm (No. 10) sieve in mg/kg. On the data sheet, indicate the method that was used. Report the value to the nearest 0.1 mg/kg.

Determining Water-Soluble Chloride Ion Content in Soil T291-22: Determine the chloride ion content by using Method A or Method B for the material passing the 2.00-mm (No. 10) sieve in mg/kg. On the data sheet, indicate the method that was used. Report the value to the nearest 0.1 mg/kg.

Contact AASHTO re:source at psp@ashtoresource.org or call 240-436-4900 if there are questions.