
Standard Method of Test for Determining pH of Soil for Use in Corrosion Testing

AASHTO Designation: T 289-22

Technically Revised: 2022

Technical Subcommittee: 1a, Soil and Unbound Recycled Materials



**American Association of State Highway and Transportation Officials
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1. SCOPE

- 1.1. This test method describes procedures and apparatus for determining a pH value for corrosion testing by use of a pH meter.
- 1.2. The principal use of the test is to supplement soil-resistivity measurements and thereby identify conditions under which the corrosion of metals in the soil may be sharply accentuated. This standard is divided into two parts. The first part involves obtaining and preparing the sample to size for testing. The second part describes the test method for determining the pH of soil.
- 1.3. The values stated in SI units are to be regarded as the standard.
- 1.4. *The quality of the results produced by this standard are dependent on the competence of the personnel performing the procedure and the capability, calibration, and maintenance of the equipment used. Agencies that meet the criteria of R 18 are generally considered capable of competent and objective testing/sampling/inspection/etc. Users of this standard are cautioned that compliance with R 18 alone does not completely assure reliable results. Reliable results depend on many factors; following the suggestions of R 18 or some similar acceptable guideline provides a means of evaluating and controlling some of those factors.*

2. REFERENCED DOCUMENTS

- 2.1. *AASHTO Standards:*
- M 231, Weighing Devices Used in the Testing of Materials
 - M 339M/M 339, Thermometers Used in the Testing of Construction Materials
 - R 18, Establishing and Implementing a Quality Management System for Construction Materials Testing Laboratories
 - R 76, Reducing Samples of Aggregate to Testing Size
 - R 90, Sampling Aggregate Products
- 2.2. *ASTM Standards:*
- E1, Standard Specification for ASTM Liquid-in-Glass Thermometers
 - E11, Standard Specification for Woven Wire Test Sieve Cloth and Test Sieves
 - E29, Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications
 - E230/E230M, Standard Specification for Temperature-Electromotive Force (emf) Tables for Standardized Thermocouples