
Standard Practice for Determination of Constant Mass

AASHTO Designation: PP 97-19 (2023)¹

First Published: 2019

Reviewed but Not Updated: 2023

Technical Subcommittee: 5c, Quality Assurance and Environmental

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

- 1.1. This practice contains general criteria and guidelines for determining constant mass when drying samples or testing equipment. This practice is intended for use with test methods that do not contain all the specific requirements for determining constant mass.
- 1.2. *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*
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2. REFERENCED DOCUMENTS

- 2.1. *AASHTO Standards:*
- < T 255, Total Evaporable Moisture Content of Aggregate by Drying
 - < T 265, Laboratory Determination of Moisture Content of Soils
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3. TERMINOLOGY

- 3.1. *Definition:*
- 3.1.1. *constant mass*—the state at which a mass does not change more than a given percent, after additional drying for a defined time interval, at a required temperature.
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4. SIGNIFICANCE AND USE

- 4.1. A consistent method of defining and determining constant mass of a sample or testing equipment is required to reduce variations in test results. The test method may define the allowable temperature, time interval, and allowable percent change in mass. When a test method does not address any or all of these, the following should be considered:
- 4.1.1. *Related Standards*—Standards for comparable material type, where a procedure for constant mass or its components are included, should be considered.
- 4.1.2. *Temperature*—Test methods differ in specifying temperatures.
- 4.1.3. *Heat Application*—Heat sources that are not thermostatically controlled should be used in a way that distributes the heat evenly throughout the sample. This can be accomplished by stirring; managing the distance or output from the heat source, such as a heat lamp or open flame; or, in the