
Standard Practice for Vacuum Drying Compacted Asphalt Specimens

AASHTO Designation: R 79-22¹

Technically Revised: 2022

Editorially Revised: 2022

Technical Subcommittee: 2c, Asphalt–Aggregate Mixtures



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

- 1.1. This standard practice covers the process of drying compacted field and laboratory specimens using a vacuum apparatus. The values stated in SI units are to be regarded as the standard.
- 1.2. The specimens dried by this practice remain at close to room temperature, which helps in maintaining specimen integrity during the drying process and allows the operators to run repeated tests on the same sample, if necessary.
- 1.3. This standard can also be used for drying other construction materials such as concrete, soils, aggregates, and loose asphalt mixtures. Use recommendations provided from the manufacturer for drying other construction materials.
- 1.4. *This standard practice may involve hazardous materials, operations, and equipment. 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.*

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

3. TERMINOLOGY

- 3.1. *dry specimen condition*—dry specimen condition is based on the factory calibrated pressure at which no more water remains in the vacuum chamber.

4. APPARATUS

- 4.1. *Vacuum Device*—Attached to a pump capable of evacuating a sealed chamber to a pressure of 6 mmHg when at sea level. The chamber shall accommodate cylindrical specimens of 150-mm (5.91-in.) diameter by 180-mm (7.09-in.) height or cubical samples of 150-mm (5.91-in.) length by 150-mm (5.91-in.) width by 180-mm (7.09-in.) height.
- 4.1.1. The device shall be capable of controlling the vacuum, airflow, and temperature in order to properly dry the specimen at close to room temperature.