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# **Standard Practice for Match Curing of Concrete Test Specimens**

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**AASHTO Designation: R 72-22<sup>1</sup>**

**Technically Revised: 2022**

**Technical Subcommittee: 3c, Hardened Concrete**



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## 1. SCOPE

- 1.1. This recommended practice covers procedures for making and curing cylindrical concrete specimens at the same temperature as that measured in a concrete member.
- 1.2. The concrete sample used to make the specimens shall be taken from the concrete being placed in the same member where the temperature is to be measured.
- 1.3. This procedure can be deployed with confidence for both air chamber and insulated jacket (Surecure) systems and for both molded cylinders with nominal diameter to height dimensions of 100 by 200 mm (4 by 8 in.) or 150 by 300 mm (6 by 12 in.). However, users should be watchful of Type I error for air chamber systems and Type II error with insulated jacket mold systems. A Type I error represents the situation where loss of temperature control occurs over only a portion of the entire match-cure duration where control is later regained. A Type II error represents the situation where a constant level of temperature control error occurs during the entire match-cure duration.
- 1.4. The values stated in SI units are to be regarded as the standard.
- 1.5. *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:*
- M 205M/M 205, Molds for Forming Concrete Test Cylinders Vertically
  - M 339M/M 339, Thermometers Used in the Testing of Construction Materials
  - R 60, Sampling Freshly Mixed Concrete
  - R 100, Making and Curing Concrete Test Specimens in the Field
  - T 119M/T 119, Slump of Hydraulic Cement Concrete
  - T 152, Air Content of Freshly Mixed Concrete by the Pressure Method
  - T 196M/T 196, Air Content of Freshly Mixed Concrete by the Volumetric Method
- 2.2. *ASTM Standards:*
- C125, Standard Terminology Relating to Concrete and Concrete Aggregates
  - C1064/C1064M, Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete