



Standard Guide to Methods of Evaluating Moisture Conditions of Concrete Floors to Receive Resilient Floor Coverings¹

This standard is issued under the fixed designation E 1907; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This guide includes both quantitative and qualitative procedures used to determine the amount of water or water vapor present in or emitting from concrete slabs and criteria for evaluating the moisture-related acceptability of concrete slabs to receive resilient floor coverings and related adhesives.

1.2 Although carpet tiles, carpet, wood flooring coatings, films, and paints are not specifically intended to be included in the category of resilient floor coverings, the procedures included in this guide may be useful for evaluating the moisture-related acceptability of concrete slabs for such finishes.

1.3 This guide does not cover the adequacy of a concrete floor to perform its structural requirements.

1.4 This guide does not include procedures to determine the presence of non-moisture related impediments to the application of finishes.

1.5 This guide does not supersede the specific instructions or recommendations of manufacturers for their flooring finishes.

1.6 *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 ASTM Standards:²

C 33 Specification for Concrete Aggregates

C 125 Terminology Relating to Concrete and Concrete Aggregates

C 168 Terminology Relating to Thermal Insulating Materials

C 330 Specification for Lightweight Aggregate for Structural Concrete

C 332 Specification for Lightweight Aggregate for Insulating Concrete

D 2216 Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock

D 4259 Practice for Abrading Concrete

D 4263 Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method

D 4397 Specification for Polyethylene Sheeting for Construction, Industrial, and Agricultural Applications

E 631 Terminology of Building Constructions

E 1643 Practice for Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs

F 2170 Test Method for Determining Relative Humidity in Concrete Floor Slabs Using In Situ Probes

F 1869 Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride

F 141 Terminology Relating to Resilient Floor Coverings

2.2 Other Sources:

BS 5325:1983 British Standard Code of Practice for Installation of Textile Floor Coverings³

BS 8203:1987 British Standard Code of Practice for Installation of Sheet and Tile Flooring³

CRI 104-1994 Standard for Installation of Commercial Textile Floorcovering Materials⁴

Addressing Moisture Related Problems Relevant to Resilient Floor Coverings Installed Over Concrete⁵

Moisture Guidelines for the Floor Covering Industry⁶

3. Terminology

3.1 Definitions:

¹ These practices are under the jurisdiction of ASTM Committee F06 on Resilient Floor Coverings and are the direct responsibility of Subcommittee F06.40 on Practices.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ British Standards Institution, 389 Chiswick High Road, London W4 4AL.

⁴ The Carpet and Rug Institute, P.O. Box 2048, Dalton, GA 30722-2048, 706/278-3176, 1994.

⁵ Resilient Floor Covering Institute, 966 Hungerford Drive, Suite 12-B, Rockville, MD 20850 (301) 340-8580, November 1995.

⁶ World Floor Covering Association, 2211 E. Howell Avenue, Anaheim, CA 92806 (800) 624-6880 Fax (714) 978-6066, undated but received August 1995.