



Designation: F1265 – 03a (Reapproved 2024)

Standard Test Method for Resistance to Impact for Resilient Floor Tile¹

This standard is issued under the fixed designation F1265; 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 test method measures the resistance to impact of resilient floor tile.

1.2 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.3 *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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.4 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*²

F141 Terminology Relating to Resilient Floor Coverings

3. Terminology

3.1 *Definitions*—For definitions of terms used in this test method refer to Terminology F141.

4. Significance and Use

4.1 Resilient floor tile is subjected to impacts from objects that may be inadvertently dropped on to surfaces. It is not possible to know all of the factors related to the dropped objects (shape, weight, height of drop) or the condition of the environment in which the tile is located (types of subfloor,

degree of adhesion to subfloor, temperature). Therefore, this test method can only provide a relative measure of resistance of resilient floor tile to impact.

5. Apparatus

5.1 *Impact Testing Apparatus*, consisting essentially of a specimen support, weights, and a device for guiding a freely falling weight. A suitable apparatus is shown in Fig. 1.

5.1.1 *Specimen Support*, consisting of three steel balls, each 1 in. in diameter, equally spaced over a rigid steel base so that a circle drawn through the center of the balls is 5 in. in diameter. The three balls shall be firmly attached to the base plate and the balls and the base plate shall weigh not less than 10 lbs (4.5 kg).

5.1.2 *Steel Ball*, 1 in. (2.54 cm diameter) weighing 0.143 lb $\pm$ 0.002 lb (0.065 kg $\pm$ 0.001 kg) shall be used for testing $\frac{1}{8}$ (0.317 cm) and thinner floor covering; and a 1 in. (2.54 cm) diameter steel cylinder weighing 0.350 lb $\pm$ 0.005 lb (0.159 kg $\pm$ 0.002 kg) shall be used and having a hemispherical end, for testing $\frac{3}{16}$ in. (0.476 cm) and $\frac{1}{4}$ in. (0.635 cm) material.

5.1.3 *Slotted Tube*, graduated in $\frac{1}{4}$ in. (0.635 cm) divisions, about 20 in. (50.8 cm) in height and of sufficient size to permit the weight to fall through it freely, is mounted vertically over the specimen support so as to guide the freely falling weight to the center of the circle formed by the three balls.

5.2 *Zinc Oxide Paste*, made by mixing powdered zinc oxide with water to form a thin paste.

6. Test Specimen

6.1 The specimen shall consist of a 6 in. by 6 in. (15 cm by 15 cm) portion of the test unit.

7. Conditioning

7.1 *Conditioning in Air*—Condition the specimens for physical test in air maintained at 73.4 °F $\pm$ 1.8 °F (25 °C $\pm$ 1 °C) and 50 % $\pm$ 5 % relative humidity for not less than 24 h before testing.

7.2 *Conditioning in Water*—Maintain the water temperature at 77 °F $\pm$ 1.8 °F (2 °C $\pm$ 1 °C) unless otherwise specified. Immerse the specimen for not less than 15 min or more than 30 min before testing.

¹ This test method is under jurisdiction of ASTM Committee F06 on Resilient Floor Coverings and is the direct responsibility of Subcommittee F06.20 on Test Methods.

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