



## Standard Test Method for Size and Squareness of Resilient Floor Tile by Dial Gage Method<sup>1</sup>

This standard is issued under the fixed designation F 2055; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope

1.1 This test method covers the determination of both dimensions (length and width) and squareness of resilient floor tile. This test method is intended for use with square tiles ranging from a nominal 9 in. (226 mm) to 40 in. (1016 mm) in dimension.

1.2 The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are for information only.

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

### 2. Referenced Documents

#### 2.1 ASTM Standards:

- F 141 Terminology Relating to Resilient Floor Coverings<sup>2</sup>
- F 536 Test Method for Size of Resilient Floor Tile by Dial Gage Method<sup>2</sup>
- F 540 Test Method for Squareness of Resilient Floor Tile by Dial Gage Method<sup>2</sup>

### 3. Significance and Use

3.1 Both dimension and squareness of resilient floor tile are important considerations, because installed flooring may exhibit an objectionable appearance when either or both characteristics deviate from established tolerances. This test method provides a means of determining actual dimensions and squareness by using a single apparatus and procedure. This test method may be used as a substitute for Test Methods F 536 and F 540, which allow for similar measurements on resilient floor tile up to 12 in. (305 mm) in size.

### 4. Apparatus

4.1 The apparatus shall consist of four dial gages (referenced A through D in Fig. 1) and two reference index strips mounted on a flat bedplate in a configuration that, by rotation of the sample, allows the measurement of all four sides of

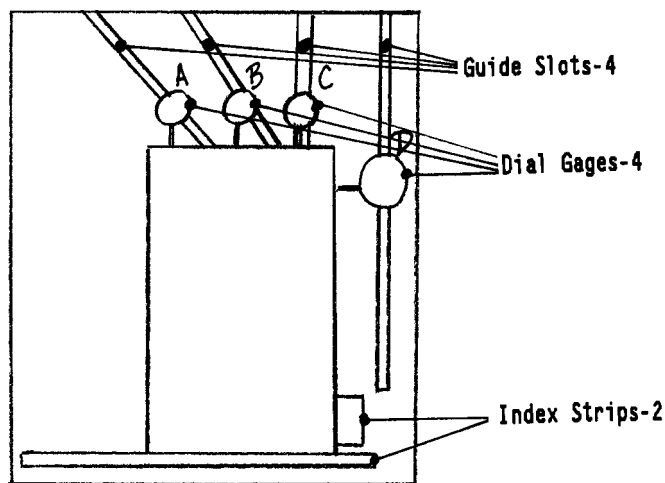


FIG. 1 Tile Measurement Apparatus

resilient tile samples (see Fig. 1). One edge of the bedplate is elevated to create a test surface which is offset or tilted  $15 \pm 1$  degrees from horizontal. This offset applies minimal pressure to the test specimen against the longer index strip to ensure repeatable measurement. A reference plate representing target tile size and squareness is used to zero all dial gages (see Fig. 2).

4.2 *Dial Gages*—The four dial gages are mounted in guide slots that are machined into the bedplate to allow for measurement of various tile sizes while remaining within 10% of the corner of the tile edge (for the two corner gages and one squareness gage) or within the central 10% of the tile edge (for the center gage only). Dial gages may report measurements using either electrical or mechanical means, but they shall be graduated to read 0.001 in. (0.02 mm) and have a stem travel greater than 0.25 in. (6 mm). The contact foot of the dial-gage stem shall be flat  $0.50\text{--}0.75 \pm 0.001$  in. (12.7–19.1 mm  $\pm 0.2$  mm) in diameter and exert a total force of not more than  $3.0 \pm 0.1$  ozf ( $0.83 \pm 0.003$  N). Dial gages shall be securely positioned so that when the reference plate is in place, the contact foot is extended approximately 50% of its full travel.

4.3 *Index Strips*—The apparatus contains 2 fixed index strips. A horizontal index strip shall be mounted parallel to and just inside the lower edge of the bedplate. It shall be  $1.5 \pm 0.1$  in. ( $38 \pm 3$  mm) greater in length and a minimum of twice the thickness of the largest tile to be tested. A second index strip shall be mounted  $90^\circ \pm 10^\circ$  ( $1.57080 \pm 0.00005$  rad.) to the

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<sup>2</sup> Annual Book of ASTM Standards, Vol. 15.04.