Designation: ~~F3008 – 13~~ F3008 – 13$^{\varepsilon 1}$

Standard Specification for Cork Floor Tile[1]

This standard is issued under the fixed designation F3008; 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.

ε[1] NOTE— In paragraph 8.5, "Method A" was added to reference ISO 24338 editorially in October 2016.

1. Scope

1.1 This specification covers requirements for the compound and physical characteristics of cork floor tile. This standard specifies the requirements for cork floor coverings made from agglomerated composition cork supplied in tile form, which are designed to be used with a factory finish or an in situ finish, or both.

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

2. Referenced Documents

2.1 *ASTM Standards:*[2]
F137 Test Method for Flexibility of Resilient Flooring Materials with Cylindrical Mandrel Apparatus
F141 Terminology Relating to Resilient Floor Coverings
F386 Test Method for Thickness of Resilient Flooring Materials Having Flat Surfaces
F710 Practice for Preparing Concrete Floors to Receive Resilient Flooring
F925 Test Method for Resistance to Chemicals of Resilient Flooring
F970 Test Method for Static Load Limit
F1914 Test Methods for Short-Term Indentation and Residual Indentation of Resilient Floor Covering
F2055 Test Method for Size and Squareness of Resilient Floor Tile by Dial Gage Method
F2199 Test Method for Determining Dimensional Stability of Resilient Floor Tile after Exposure to Heat
2.2 *European Standards:*[3]
EN 672 Resilient floor coverings - Determination of apparent density of agglomerated cork
EN 434 Resilient floor coverings - Determination of dimensional stability and curling after exposure to heat
2.3 *ISO Standards:*[4]
ISO 4918 Resilient textile, and laminate floor coverings – Castor Chair Test
ISO 24338 Laminate floor coverings – Determination of abrasion resistance
2.4 *ANSI/ASQC Standard:*[4]
ANSI/ASQC XZ1.4 Sampling Procedures and Tables for Inspection by Attributes

3. Terminology

3.1 *Definitions*—For definitions of terms used in this standard, see Terminology F141.

3.2 *agglomerated cork*—product obtained from the blending of cork granules with the addition of a binder. The percentage of cork, by weight, shall be >90 %.

[1] This specification is under the jurisdiction of ASTM Committee F06 on Resilient Floor Coverings and is the direct responsibility of Subcommittee F06.80 on Specifications.

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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] Available from European Committee for Standardization (CEN), Avenue Marnix 17, B-1000, Brussels, Belgium, http://www.cen.eu.

[4] Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, http://www.ansi.org.

4. Classification

4.1 *Class*—Type: cork floor tile covered by this specification shall have a smooth surface and be classified as follows:
4.1.1 *Class I*—Homogeneous Cork Tile (6.1)
4.1.1.1 *Type A*—Unfinished (specify details of staining or site finishing, or both)
4.1.1.2 *Type B*—Factory finished (specify per manufacturer's product information)
4.1.2 *Class II*—Heterogeneous Cork Tile (6.2)
4.1.2.1 *Type A*—Unfinished (specify details of staining or site finishing, or both)
4.1.2.2 *Type B*—Factory finished (specify per manufacturer's product information)

5. Ordering Information

5.1 Purchaser shall state whether this specification is to be used, select the preferred options permitted herein, and include the following information in the invitation to bid or purchase order:
5.1.1 Title, number, and date of this specification.
5.1.2 Class, type, pattern, and wearing surface (Section 4).
5.1.3 Quantity, in square feet, square metres, or cartons.
5.1.4 Size required.
5.1.5 Thickness required.
5.1.6 Resistance to chemicals (8.6).
5.1.7 Lot information; if other than as specified in ANSI/ASQC Z1.4 (11.1).
5.1.8 Packing requirements, if other than as specified (Section 14).
5.1.9 Palletizing, if required.
5.1.10 Marking required, if other than specified (Section 13).
5.1.11 Other requirements.

6. Materials and Manufacture

6.1 *Class I*—Homogeneous Cork Tile – Homogeneous cork tile shall be of uniform structure and composition throughout, consisting of cork granules thoroughly and uniformly bonded together.

6.2 *Class II*—Heterogeneous Cork Tile – The pattern of this tile comprises a veneer layer of cork and a base layer consisting of cork granules thoroughly and uniformly bonded together. The pattern of this tile need not extend throughout the entire thickness of the tile.

7. Physical Properties

7.1 *Squareness*—When tested in accordance with Test Method F2055, cork floor tile squareness variation shall not exceed 0.02 in. (0.5 mm).

7.2 *Thickness*—When tested in accordance with Test Method F386, thickness variation shall not exceed ±0.01 in. (±0.25 mm).

7.3 *Size*—When measured in accordance with Test Method F2055, a tolerance of ±0.016 in. (0.4 mm) per tile shall be permitted.

7.4 *Apparent Density*—Shall be ≥28 lb/ft^3(450 kg/m^3) when tested in accordance with EN 672.

7.5 *Curling*—When tested in accordance with EN 434, shall curl less than 0.236 in. (6 mm).

7.6 *Moisture Content*—Shall be >4.5 % and <6 %, when tested per manufacturer's guidelines.

7.7 *Flexibility*—When tested in accordance with Test Method F137 and a mandrel size of 2-in. (50.8 mm), the tile shall show no cracks or breaks.

8. Performance Requirements

8.1 *Castor Chair Test*—When tested in accordance with ISO 4918 after 20 000 cycles, for commercial use, no disturbance to the surface other than slight change in appearance and no delamination shall occur.

8.2 *Static Load Resistance*—When tested in accordance with Test Method F970, with an applied load of 250 lb (113.4 kg), the residual indentation shall not be greater than 0.005 in. (0.127 mm).

8.3 *Residual Indentation*—When tested in accordance with Test Method F1914, under 30-lb (13-kg) load, 0.25-in. (6.35-mm) flat foot and 10 min indentation, the average residual indentation at the end of 60-min recovery shall not exceed 8 %, and the maximum residual indentation of any single specimen shall not exceed 10 %.

8.4 *Dimensional Stability*—When tested in accordance with Test Method F2199, the tile shall not change in linear dimension more than 0.020 in./linear ft (0.51 mm/305 mm).

8.5 *Abrasion Resistance*—When tested per the method described in ISO ~~24338,~~ 24338–Method A, cork floor tile shall pass at ≥4000 revolutions for commercial use.