



# Standard Terminology Relating to Resilient Floor Coverings<sup>1</sup>

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*This standard has been approved for use by agencies of the Department of Defense.*

## 1. Referenced Documents

### 1.1 ASTM Standards:<sup>2</sup>

- F1066 Specification for Vinyl Composition Floor Tile
- F1303 Specification for Sheet Vinyl Floor Covering with Backing
- F1344 Specification for Rubber Floor Tile
- F1700 Specification for Solid Vinyl Floor Tile
- F1859 Specification for Rubber Sheet Floor Covering Without Backing
- F1860 Specification for Rubber Sheet Floor Covering With Backing
- F1913 Specification for Vinyl Sheet Floor Covering Without Backing
- F2034 Specification for Sheet Linoleum Floor Covering
- F2195 Specification for Linoleum Floor Tile

## 2. Terminology

### 2.1 Terms and Definitions:

- above-grade**, *adj*—above the surface of the ground, as related to floor location, above a well-ventilated space with at least 18 in. (457.2 mm) between the bottom of the lowest horizontal structural member and any point of the ground.
- abrasion**, *n*—wearing, grinding, or rubbing away by friction.
- across machine direction**, *n*—the direction perpendicular to which a product moves through the manufacturing process.
- asphalt tile**, *n*—an obsolete floor surfacing unit composed of asphalt or hydrocarbon resins, or both, crysotile asbestos fibers, mineral fillers, and pigments.
- below-grade**, *adj*—below the surface of the ground, as related to floor location, part or all of the floor is below the ground.

<sup>1</sup> This terminology is under the jurisdiction of ASTM Committee F06 on Resilient Floor Coverings and is the direct responsibility of Subcommittee F06.10 on Terminology.

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<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

**cellular concrete**, *n*—a light weight flooring substrate material which utilizes a hydraulic cement as the binder and has a homogeneous void or cell structure attained using gas forming chemicals or foaming agents.

**concrete**, *n*—a hard, strong material made by mixing a cementing material (commonly portland cement) and a mineral aggregate (as washed sand and gravel or broken rock) with sufficient water to cause the cement to set and bind the entire mass.

**coefficient of friction**—the ratio of the tangential force that is needed to start or maintain uniform relative motion between two contacting surfaces to the perpendicular force holding them in contact. (See DCOF and SCOF in 2.2 for clarification.)

**cork tile**, *n*—a floor surfacing unit made from natural cork shavings compressed and baked to be thoroughly and uniformly bonded together.

**cushioned vinyl flooring**, *n*—any vinyl sheet floor covering incorporating a foam layer as part of its construction.

**dimensional stability**, *n*—the ability of a resilient flooring to retain its original dimensions during the service life of the product.

DISCUSSION—This property is usually measured by: (1) *temperature-induced dimensional change*—the alteration in linear dimensions as a result of exposure to a significant variation in temperature followed by a return to original conditions; or (2) *moisture-induced dimensional change*—the alteration in linear dimensions as a result of exposure to a significant variation in moisture.

**drying room yellowing**, *n*—a yellowish cast on linoleum resultant from the oxidation process that will go away with light exposure. Without continued light exposure, the cast may reappear.

**dynamic coefficient of friction**—the ratio of the tangential force that is needed to maintain uniform relative motion between two contacting surfaces to the perpendicular force holding them in contact (DCOF).

**embossed**, *adj*—having a permanent multilevel surface produced by mechanical or chemical means.

**flexibility**, *n*—the ability to be bent, turned, or twisted without cracking, breaking or showing other permanent damage and with or without returning of itself to its former shape.

**friction**, *n*—resistance to the relative motion of one body sliding or rolling over another with which it is in contact.

**gouge**, *n*—a groove or cavity in the flooring surface accompanied by material removal and penetration below the immediate flooring surface.

**heat welded seam**, *n*—a seam produced by grooving abutting edges of resilient flooring and filling said groove(s) with heated, fused, or melted material to provide a bond and seal. A glazing or top coating may be applied after the seam is trimmed.

DISCUSSION—Excess welding material is trimmed flush with the finished flooring after cooling.

**heterogeneous**, *adj*—consisting of dissimilar ingredients, constituents or compositions.

**heterogeneous resilient flooring**, *n*—a resilient floor surfacing material consisting of layers of dissimilar compositions or colors, or both.

**homogenous rubber flooring**, *n*—a rubber floor surfacing material, in sheet or tile form, that is of uniform structure and composition throughout. It usually consists of compounded natural or synthetic rubbers, or both, in combination with mineral fillers, pigments, and other additives. See Specifications F1344, F1859 and F1860.

**homogeneous vinyl flooring**, *n*—a floor surfacing material in sheet or tile form that is of uniform structure and composition throughout. It usually consists of vinyl plastic resins, plasticizers, fillers, pigments and stabilizers. See also Specification F1913.

**hydraulic cement**, *n*—a binder system used in concrete subfloor assemblies that harden by chemical reaction with water and is capable of doing so even under water.

**injection molded flooring**—a floor surfacing material made by driving or forcing a polymeric compound into a mold.

**inlaid sheet flooring**, *n*—a floor surfacing material in which the decorative pattern or design is formed by colored areas set in to the surface. The design so formed may or may not extend through to a backing. See also Specifications F1303 and F1913.

**lightweight concrete**, *n*—concrete with a density of less than 115 lb/ft<sup>3</sup> (1840 kg/m<sup>3</sup>).

**linoleum**, *n*—a surfacing material composed of a solidified mixture of linseed oil, pine rosin, fossil or other resins or rosins, or an equivalent oxidized oleoresinous binder, ground cork, wood flour, mineral fillers, and pigments, bonded to a fibrous or other suitable backing. See also Specifications F2034 and F2195.

**linoleum cement**—the binder in linoleum consisting of a mixture of linseed oil, pine rosin, fossil or other resins or rosins, or an equivalent oxidized oleoresinous binder.

**lippage**, *n*—abrupt, height difference in elevation between edges of adjacent resilient flooring, usually as it relates to installed tile.

**luxury vinyl tile (LVT)**, *n*—a marketing term that is applied to resilient floor tile products.

**machine direction**, *n*—the direction in which a product moves through the manufacturing process.

**mar**, *n*—a mark made on the flooring surface by the deposition of material from friction or rubbing of traffic bodies against the surface.

**oleoresin**, *n*—a plant product containing chiefly essential oil and resin.

**on-grade**—in contact with the ground, *as related to floor location*, in contact with the ground or with less than 18 in. (457.2 mm) of well-ventilated space between the bottom of the lowest horizontal structural member and any point of the ground.

**patching compound**, *n*—compound used to fill or smooth minor depressions or irregularities in a flooring surface.

**plank**, *n*—a form of resilient floor covering having an aspect ratio greater than 2:1.

**polymeric poured (seamless) floors**, *n*—a floor surfacing material composed of polymeric materials applied to the substrate in liquid form alone or in combination with mineral or plastic aggregates, desiccants, or fillers.

**polyolefin**—a polymer prepared by the polymerization of an olefin(s) as essentially the sole monomers(s). (D20)

**post-consumer recycled content**, *n*—the portion, often expressed as a percent by weight, of material used in the manufacture of a new product, where the material ex. works has been recovered or otherwise diverted from disposal.<sup>3</sup>

**pre-consumer recycle content**, *n*—material recovered or diverted from industrial waste streams for use in the manufacture of a new product or a product made by a new process, often expressed as a percent by weight. This excludes materials and by-products generated from and commonly reused or reworked within the original manufacturing process.<sup>3</sup>

**printed sheet vinyl flooring**, *n*—a floor surfacing material which has a printed pattern and is protected with a wearlayer of transparent or translucent vinyl plastic. The wearlayer may also include a specialty performance top coating.

**recycled content**, *n*—the sum, normally expressed as a percent by weight, of post-industrial or pre-consumer recycled material plus post-consumer recycled material.<sup>3</sup>

**resilient**, *adj*—tending or able to recover from strain or deformation caused especially by compressive stress.

<sup>3</sup> See the U.S. Federal Trade Commission Document CFR Part 260 - Guide for the Use of Environmental Marketing Claims for additional information and examples. This document can be found at <http://www.ftc.gov/os/1996/10/16cfr260.htm>.

**resilient flooring**, *n*—an organic floor surfacing material made in sheet or tile form or formed in place as a seamless material of which the wearing surface is non-textile. The resilient floor covering classification by common usage includes, but is not limited to asphalt, cork, linoleum, rubber, vinyl, vinyl composition, and polymeric poured seamless floors. Resilient in this sense is used as a commonly accepted term, but does not necessarily define a physical property. (1972)

**resin**, *n*—any of various solid or semi-solid amorphous fusible natural organic substances that are usually transparent or translucent and yellowish to brown and are formed especially in plant secretions, are soluble in organic solvents but not in water. Any of a large class of synthetic products that have some of the properties of natural resins, but are different chemically.

**rosin**, *n*—a translucent amber to almost black brittle friable resin that is obtained by chemical means from the oleoresin or dead wood of pine trees or from tall oil.

**rubber flooring**, *n*—a floor surfacing material in sheet or tile form consisting of compounded natural or synthetic rubbers or both in combination with mineral fillers, pigments, and other additives. See also Specifications **F1344**, **F1859** and **F1860**.

**scratch**, *n*—a shallow cut or narrow groove in the flooring surface. A line or furrow made in the flooring surface by rasping or rubbing with a pointed or jagged object.

**scuff**, *v*—a form of wear, in which a mark, gall, roughness or other damage is caused by the rubbing of traffic bodies against a flooring surface and may involve deposition of a foreign material onto the flooring surface.

**sheet, resilient flooring**, *n*—flexible resilient flooring, packaged in roll form, in which the length substantially exceeds the width.

DISCUSSION—Sheet flooring is usually manufactured in widths of 4 to 16 ft (1.22 to 4.88 m) with rolls being up to approximately 150 ft (45.7 m) long to allow seamless installation in small rooms and minimize seams in large rooms.

**slip resistance**, *n*—the ability to counteract loss of traction.

**solid vinyl tile**, *n*—a resilient tile flooring composed of binder, fillers and pigments compounded with suitable stabilizers and processing aids. The binder consists of polymers and/or copolymers of vinyl chloride, other modifying resins, and plasticizers which comprise at least 34 % by weight of the finished tile. The polymers and copolymers of vinyl chloride comprise at least 60 % of the weight of the binder. See also Specification **F1700**.

**static coefficient of friction**—the ratio of the tangential force that is needed to start uniform relative motion between two contacting surfaces to the perpendicular force holding them in contact (SCOF).

**structural**, *adj*—capable of transferring loads across and through supporting members.

**subfloor**, *n*—that structural layer intended to provide support for design loadings which may receive resilient floor coverings directly if the surface is appropriate or indirectly via an underlayment if its surface is not suitable.

**substrate**, *n*—the underlying support surface upon which the flooring is installed.

**tangential force**, *n*—a force that acts on a moving body in the direction of a tangent to the curved path of the body.

**terrazzo**, *n*—a form of mosaic flooring made by embedding marble, onyx, granite, or glass chips in portland cement, polyacrylate modified portland cement, or resinous matrices. The terrazzo is poured in place, cured, ground, and then polished. Rustic terrazzo is a variation where, in lieu of grinding and polishing, the surface is washed with water or otherwise treated to expose the chips. Quartz, quartzite, and river bed aggregate can also be used.

**tile, resilient flooring**, *n*—resilient flooring (for example cork, linoleum, rubber, solid vinyl, vinyl composition, etc) which is packaged in flat pieces and installed as individual units.

DISCUSSION—Tiles are usually square, with sides of 9 to 40 in. (228.6 to 1016 mm); most commonly 12 by 12 in. (304.8 by 304.8 mm). They can also be long and narrow, such as 4 by 36 in. (101.6 by 914.4 mm) (sometimes called “plank”). The surface can be smooth, textured or embossed.

**traction**, *n*—the adhesive friction of a body on a surface on which it moves.

**underlayment**, *n*—a material placed under resilient flooring, or other finished flooring, to provide a suitable installation surface.

**vinyl asbestos tile (VAT)**, *n*—an obsolete form of resilient tile composed of vinyl plastic binders, crysotile asbestos fibers, mineral fillers and pigments.

**vinyl composition tile (VCT)**, *n*—a resilient floor covering composed of binder, fillers, and pigments. The binder shall consist of one or more resins of poly (vinyl chloride), or vinyl chloride copolymers, or both, compounded with suitable plasticizers and stabilizers. Other polymeric resins may be incorporated as part of the binder. See also Specification **F1066**.

**wear**, *n*—the deterioration caused from use over time of a resilient flooring’s surface which tends to impair a material’s serviceability. Such influences include, but are not limited to abrasion, scratching, gouging and scuffing.

**wearlayer**, *n*—the portion of a resilient floor covering that contains or protects the pattern and design exclusive of temporary finishes or maintenance coatings.

#### 2.2 Abbreviations:

**COF**—coefficient of friction.

**DCOF**—dynamic coefficient of friction.

**SCOF**—static coefficient of friction.

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