



Designation: F 1861 – 02

## Standard Specification for Resilient Wall Base<sup>1</sup>

This standard is issued under the fixed designation F 1861; 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 specification covers resilient wall base. These products are manufactured from rubber or thermoplastic materials, or a combination thereof. Wall base is used to provide a functional, as well as decorative border, between walls and floors. This specification does not include rigid products.

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 The following safety caveat pertains to the test methods portion, Section 12, of this specification: *This standard does not purport to address all 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 The following documents of the issue in effect on the date of the material purchase form a part of this specification to the extent referenced herein:

#### 2.2 ASTM Standards:

- D 883 Terminology Relating to Plastics<sup>2</sup>
- D 1566 Terminology Relating to Rubber<sup>3</sup>
- D 1755 Specification for Poly(Vinyl Chloride) Resins<sup>2</sup>
- F 137 Test Method for Flexibility of Resilient Flooring Materials with Cylindrical Mandrel Apparatus<sup>4</sup>
- F 141 Terminology Relating to Resilient Floor Coverings<sup>3</sup>
- F 386 Test Method for Thickness of Resilient Flooring Having Flat Surfaces<sup>4</sup>
- F 410 Test Method for Wear Layer Thickness of Resilient Floor Coverings by Optical Measurement<sup>4</sup>
- F 925 Test Method for Resistance to Chemicals of Resilient Flooring<sup>4</sup>
- F 1515 Test Method for Measuring Light Stability of Resilient Vinyl Flooring by Color Change<sup>4</sup>

<sup>1</sup> 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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<sup>2</sup> Annual Book of ASTM Standards, Vol 08.01.

<sup>3</sup> Annual Book of ASTM Standards, Vol 09.01.

<sup>4</sup> Annual Book of ASTM Standards, Vol 15.04.

### 2.3 Other Standards:

ANSI/ASQC Z1.4-1993 Sampling Procedures and Tables for Inspection by Attributes<sup>5</sup>

### 3. Terminology

3.1 *Definitions*—For definitions of other terms used in this standard, see Terminology F 141.

### 4. Classification

4.1 *Types*—Wall base shall be of the following types, as specified (see 5.1.2, 6.1, and 7.1).

4.1.1 *Type TS*—rubber, vulcanized thermoset.

4.1.2 *Type TP*—rubber, thermoplastic.

4.1.3 *Type TV*—vinyl, thermoplastic.

4.2 *Groups*—Wall base shall be one of the following groups, as specified (see 5.1.2, 6.2.1, and 6.2.2):

4.2.1 *Group 1*—solid (homogeneous).

4.2.2 *Group 2*—layered (multiple layers).

4.2.3 Either group may be specified with any of the types above. It is not necessary to specify group when either is acceptable.

4.3 *Styles*—Wall base shall be of the following styles as specified (see 5.1.2, 6.3, and Fig. 1):

4.3.1 *Style A*—straight.

4.3.2 *Style B*—cove.

4.3.3 *Style C*—butt-to.

4.4 *Corners*—Where specified, both inside and outside 90° factory-made corners should be specified by style. Corners must meet the same height and thickness requirements as wall base (see Section 9).

NOTE 1—Factory-made corners and wall base may have visual color differences due to process and material variations. Consult the manufacturer to ensure color acceptability between factory-made corners and wall base prior to ordering.

### 5. Ordering Information

5.1 Purchasers 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,

<sup>5</sup> Available from American National Standards Institute, 25 W. 43rd St., 4th Floor, New York, NY 10036.

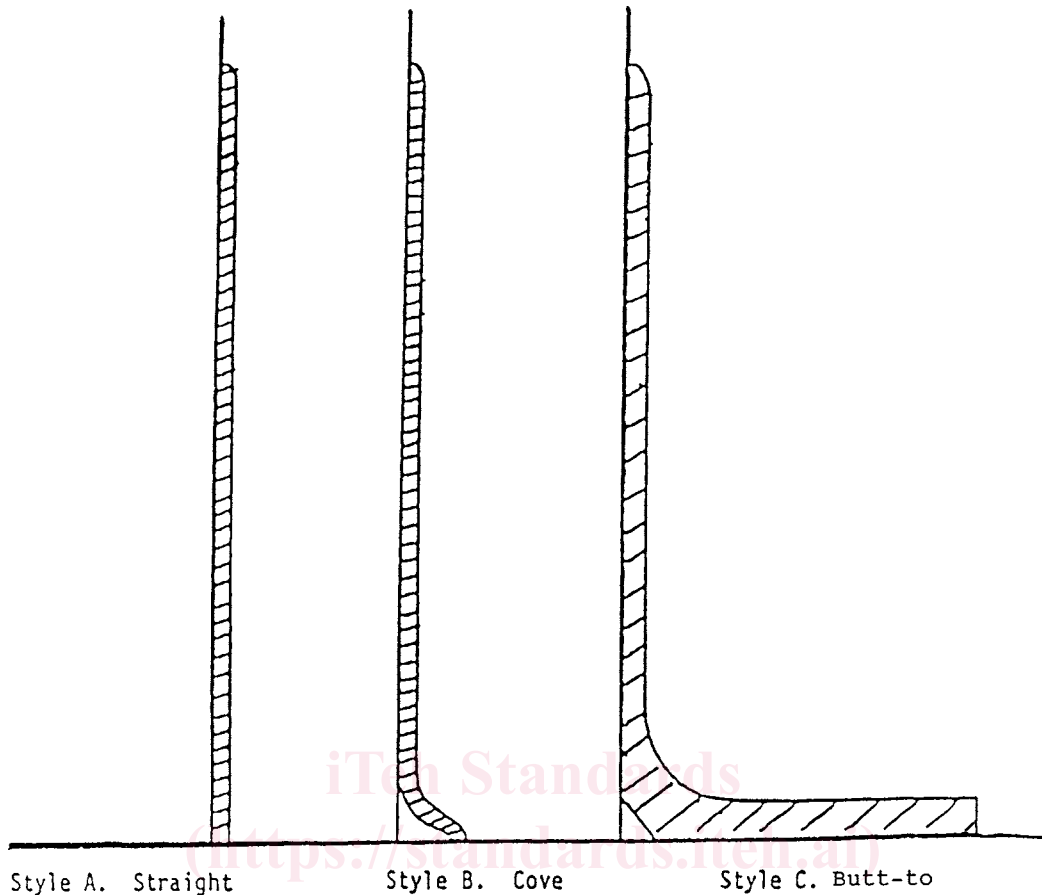


FIG. 1 Typical Profiles of Wall Base

- 5.1.2 Type, group, and style, (see Sections 4, 6, and 7),
- 5.1.3 Factory-made corners, if required (see 4.4),
- 5.1.4 Color (see 6.2),
- 5.1.5 Quantity: in pieces, linear feet, or cartons,
- 5.1.6 Height required (see 9.1),
- 5.1.7 Thickness required (see 9.2),
- 5.1.8 Length required (see 9.3, 9.3.1, and Section 15),
- 5.1.9 Lot information, if other than as specified in ANSI/ASQC Z1.4-1993, (see 11.1 and 13.1),
- 5.1.10 Sampling, if other than as specified in ANSI/ASQC Z1.4-1993, (see 11.1),
- 5.1.11 Statement requesting certification, if certification of compliance is required (see Section 14),
- 5.1.12 Packing requirements, if other than as specified (see Section 16),
- 5.1.13 Palletization, if required,
- 5.1.14 Marking required, if other than specified (see Section 15), and
- 5.1.15 Other requirements.

## 6. Materials and Manufacture

6.1 *Materials*—Any polymeric material or combination of polymeric materials is acceptable if, in combination with processing chemicals, fillers, and colorants, the material can be formed into wall base, which satisfies all the requirements of

this specification (see 5.1 and 7.1). Other suitable recycled polymeric material may be incorporated as a part of the total polymeric content.

6.2 *Color*—The color shall be as specified in the contract or order (see 5.1.4).

NOTE 2—The colors and styles that are available are indicated in individual manufacturer's current catalogs. As manufactured, colors may vary somewhat in hue or shade from the catalog.

NOTE 3—Where color match is a concern, obtain current samples from the manufacturer to verify color acceptability.

6.2.1 *Solid Wall Base*—The color shall be uniform throughout the entire thickness of the wall base.

6.2.2 *Layered Wall Base*—The surface color need not extend through the entire thickness of the wall base, but must extend throughout the entire wear layer. Layered wall base shall have a minimum wear layer thickness of 0.002 in. (0.05 mm) when measured in accordance with Test Method F 410 and shall not delaminate under normal use.

6.3 *Styles*—The style shall be as specified in the contract or order (see 5.1.2).

6.3.1 *Straight Wall Base*—The exposed surface of straight (toeless) wall base is vertical, as illustrated by the first cross-sectional profile in Fig. 1.

6.3.2 *Cove Wall Base*—The exposed surface of cove wall base shall be distinguished by a "toe" at its bottom edge as illustrated by the second cross-sectional profile in Fig. 1.

6.3.2.1 *Fit to Floor*—The toe shall be curved, or angled, or both, to allow it to fit snugly against the floor when the vertical portion of the cove base is adhered to the wall.

6.3.2.2 *Intersection at Toe*—The intersection of the exposed surfaces of the toe and the vertical portion of the cove base shall be rounded and smooth to facilitate maintenance.

6.3.3 *Butt-to Wall Base*—The exposed surface of butt-to wall base shall be distinguished by a “toe,” which butts against the flooring as illustrated by the third cross-sectional profile in Fig. 1.

6.3.3.1 *Fit to Floor*—The leading edge of the toe of the butt-to base shall be square to allow a tight, flush fit to the finished flooring when the vertical portion of the butt-to base is adhered to the wall.

6.3.3.2 *Intersection at Toe*—The intersection of the exposed surfaces of the toe and the vertical portion of the butt-to base shall be designed to facilitate maintenance.

## 7. Material Definitions

7.1 The following definitions will be used in classifying material according to 4.1:

7.1.1 *Rubber, Vulcanized Thermoset*—The polymeric binder of this compound shall satisfy the definition of rubber, and have been vulcanized, as defined in Terminology D 1566.

7.1.2 *Rubber, Thermoplastic*—The polymeric binder of this compound shall satisfy the definition of rubber, but remain thermoplastic, as defined in Terminology D 883.

7.1.3 *Vinyl, Thermoplastic*—The polymeric binder of this compound shall satisfy the definition of poly (vinyl chloride) in Terminology D 883 and Specification D 1755 but remain thermoplastic as defined in Terminology D 883.

## 8. Performance Requirements

8.1 *Flexibility*—Unless otherwise specified in the contract or order (see 5.1), the wall base shall show no visible cracks, breaks, or other evidence of weakness when tested in accordance with Test Method F 137 using a ¼ in. (6.35 mm) diameter mandrel.

NOTE 4—Cove wall base shall be tested with the mandrel perpendicular to the cove when oriented as in use.

8.2 *Staining of Adjacent Surfaces Induced by Wall Base*—Wall base shall contain no ingredient which will cause staining of the finished surfaces adjacent to it when aged by the method specified in 12.1-12.7.

8.3 *Resistance to Light*—When tested in accordance to Test Method F 1515, the color change of the wall base shall have an average  $\Delta E$  no greater than 8.0 after 200 h of exposure to light, simulated by a properly fitted xenon-arc radiant energy source.

8.4 *Resistance to Chemicals*—When tested in accordance with Test Method F 925, the wall base shall have no more than a slight change in surface dulling, surface attack, or staining when exposed to the following chemicals:

- 8.4.1 White vinegar (5 % acetic acid).
- 8.4.2 Rubbing alcohol (70 % isopropyl alcohol).
- 8.4.3 White mineral oil (medicinal grade).
- 8.4.4 Sodium hydroxide solution (5 % NaOH).
- 8.4.5 Hydrochloric acid solution (5 % HCl).
- 8.4.6 Sulfuric acid solution (5 % H<sub>2</sub>SO<sub>4</sub>).

8.4.7 Household ammonia solution (5 % NH<sub>4</sub>OH).

8.4.8 Household bleach solution (5.25 % NaOCl).

8.4.9 Olive oil (light).

8.4.10 Kerosene (K1).

8.4.11 Unleaded gasoline (regular grade).

NOTE 5—These basic chemicals are representative of those likely to be found in domestic, commercial, and institutional use. Many proprietary compounds contain one or more of these basic chemicals. Should the wall base for an unusual application need to be resistant to a specific chemical, this additional requirement should become part of the procurement document.

8.5 *Dimensional Stability*—Wall base shall not change in length by more than  $\pm 0.25$  % when tested by the method specified in 12.8-12.15.

8.6 *Odor*—The wall base shall be free from offensive odor.

## 9. Dimensions and Permissible Variations

9.1 *Height*—The height of the wall base shall be as specified in the contract or order (see 5.1.6). A tolerance of  $\pm 1$  % of the nominal height of the wall base shall be permitted when measured with a scale, caliper, or other device graduated in 0.001-in. (0.025 mm) divisions and capable of measuring the maximum height of the specimen. The specimen shall be placed on a flat surface and the measuring device applied in such a manner that the height is not distorted during measurement.

9.2 *Thickness*—Unless otherwise specified in the contract or order (see 5.1.7), the wall base shall be 0.080 in. (2.03 mm) or 0.125 in. (3.17 mm) thick. A permissible tolerance for 0.080 in. (2.03 mm) thick wall base shall be +0.015 in. to -0.005 in. (+0.38 mm to -0.13 mm) and 0.125 in. thick wall base shall have a permissible tolerance of +0.015 in. to -0.015 in. (+0.38 mm to -0.38 mm) when measured in accordance with Test Method F 386.

9.3 *Length*—The length of the wall base shall be as specified in the contract or order (see 5.1.8). The length of the wall base shall not be less than as marked on the label or package when measured with a calibrated scale or tape graduated in 1/8 in. (3.18 mm) divisions and capable of measuring the maximum length of the specimen. The specimen shall be extended to its full length on a flat surface and all creases and buckles removed, insofar as practical, without applying stresses that cause any significant stretching. The measuring device shall be applied in such a manner that the length is not distorted during measurement.

9.3.1 If a roll contains multiple lengths, a maximum of three pieces shall be permitted; the shortest length shall not be less than 15 ft (4.57 m).

9.4 *Squareness*—Each vertical end of the wall base shall form an angle of  $90^\circ \pm 0.5^\circ$  with the top edge and shall fit against the vertical end of another length so that a 0.010 in. (0.254 mm) feeler gage cannot be inserted between the sections at any point.

## 10. Workmanship, Finish and Appearance

10.1 The wall base furnished in accordance with this specification shall be free of defects, which adversely affect performance or appearance. Such defects include blemishes, spots, lines, indentations, blisters, and delamination.