

Standard Specification for Wall Coverings¹

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1. Scope

- 1.1 This specification covers the performance, quality, packaging, and marking characteristics of flexible wall coverings as finished products.
- 1.2 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system are not necessarily exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems has the potential to result in non-conformance with the standard.

2. Referenced Documents

2.1 ASTM Standards:²

F793 Classification of Wall Covering by Use Characteristics

3. Terminology

- 3.1 Definitions:
- 3.1.1 *wall covering*—a flexible product designed to cover walls and ceilings for decorative or functional purposes, or both.
 - 3.2 Definitions of Terms Specific to This Standard:
- 3.2.1 *backing (substrate)*—material upon which facing (or an intermediate layer) is applied. Backing is that material which is adhered to the wall.
- 3.2.2 *bias*—pattern running off true horizontal or vertical plane.
- 3.2.3 *bolt*—a continuous amount of packaged material containing the amount specified on the label.
- 3.2.4 *facing*—decorative material which is applied to an intermediate layer or backing.
- 3.2.5 *finished product*—wall covering offered to a consumer for installation.
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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.

- 3.2.6 *intermediate layer*—material, if any, between the facing and the backing.
- 3.2.7 *lot* (*batch*)—the product from a continuous manufacturing run having the same appearance and characteristic from beginning to end.
- 3.2.8 *pattern match*—the meeting of all parts and colors of a pattern at the seams of adjacent strips.
- 3.2.9 *pattern repeat*—the vertical distance between adjacent match points of a pattern.
- 3.2.10 *protective layer*—any material applied to the facing to enhance performance.
- 3.2.11 *register*—the designed meeting of all parts and colors of a pattern.
- 3.2.12 *run*—a unit of production which may include more than one lot.
- 3.2.13 *seconds*—finished material not meeting the required quality criteria.
- 3.2.14 *selvage*—an undecorated edge which must be trimmed away to allow for correct pattern match or uniform continuity of color.
- 3.2.15 *waste edge*—a decorated edge that must be trimmed away to allow for correct pattern match or uniformity of color.
 - 3.2.16 *Shading:*
- 3.2.16.1 *color variation* difference within the same lot of wall covering.
- 3.2.16.2 *luster variation* difference in gloss level within the same lot of wall covering.
- 3.2.16.3 *texture variation*—difference in embossing within the same lot of wall covering.
- 3.2.17 *split bolt*—a bolt consisting of two or three separate lengths of material.

4. Appearance

4.1 There shall be no appreciable difference in shading except on those finished products in which natural decorative characteristics are being simulated. These variances must be clearly stated in writing at the point of purchase. To determine whether there is an appreciable difference, suspend three sequential 8-ft [2.4-m] strips at eye level in a vertical position, as on the wall, under illumination between 100 to 150 fc [1000 to 1500 lx], and view the strips from a distance between 4 and

8 ft [1.2 and 2.4 m]. An appreciable difference is one which is noticeable when one strip is compared with the others.

5. Wall Preparation and Installation

- 5.1 Basic and correct wall preparation instructions, with particular attention to wall covering which requires special wall preparation for its proper installation, shall be included in sample books and installation instructions.
- 5.2 Installation instructions shall be in or with each bolt and be readily accessible to the installer. It shall be the manufacturer's responsibility to notify consumers of proper installation techniques when new products are introduced.
- 5.3 The manufacturer shall recommend an adhesive, when necessary, and the products to be used for wall preparation. Recommendation for alternative adhesives and wall preparation products shall be included in the installation instructions.

6. Physical Requirements

- 6.1 Each finished product shall be uniform in physical properties, in accordance with Classification F793 and this specification.
- 6.2 All facings and protective layers shall be adhered properly to backings and intermediate layers and the finished product shall be of such quality that delamination does not occur during normal installation and use.
- 6.3 Finished products shall not chip, peel, or flake during normal installation and use. (For test methods to determine conformity with this requirement refer to Classification F793.)
- 6.4 There shall be no more than a ½-in. [3.5-mm] variance in pattern match between two 8-ft [2.4-m] strips at midpoint.
- 6.5 The wall covering shall be free from all surface flaws, creases, splices, scratches, tears and dirt throughout its entire length.
- 6.6 The wall covering shall be free of wrinkles which cannot be removed in the course of normal installation.
- 6.7 The finished product shall not shrink or expand after installation when installed in accordance with the manufacturer's instructions.
- 6.8 Any pretrimmed material shall be trimmed so that no contrasting backing color will show at the seam when two sheets are properly installed.
- 6.9 No pretrimmed material shall show frayed or wavy edges.
 - 6.10 All elements of the pattern shall be in register.
- 6.11 The design shall be set at an angle of 90° to the trimmed edge.
- 6.12 Split bolts narrow goods shall have no piece shorter than 9 ft [2.7 m] and shall have an area at least 10 % larger than specified on the label. Three lengths are permitted in split bolts having an area exceeding 100 ft² [9.3 m²]. Wide commercial goods shall have no piece shorter than 3 yd [2.7 m] and one-half linear yard larger than specified on the label.
- 6.13 The finished product shall have the necessary characteristics to adhere the product to the wall when it is installed in

accordance with the manufacturer's instructions. (For test methods to determine conformity with this requirement refer to Classification F793.)

7. Inspection and Testing

- 7.1 The manufacturer shall be responsible for testing and inspection in accordance with this specification and Classification F793.
- 7.2 The introduction of new products on the market shall be preceded by thorough testing by the manufacturer under representative field conditions. The manufacturer shall validate laboratory quality control tests against actual field conditions.

8. Rejection and Review

- 8.1 The installer or purchaser shall be entitled to reject any wall covering that fails to conform to the requirements of this specification. Rejections shall be reported to the supplier promptly by any appropriate means. In the event the supplier is unwilling or unable to satisfy the complainant, the matter shall be referred to the manufacturer. The inspection and test procedures contained in this specification shall be used to determine the conformance of the product to the requirements of this specification. Each manufacturer who represents a product as conforming to this specification shall be permitted to use statistically based sampling plans that are appropriate for each particular manufacturing process, but shall keep such essential records as are necessary to document the claim that the requirements of this specification have been met.
- 8.2 Any portion of the item not meeting the required quality criteria in accordance with Classification F793 and this specification, and thus not conforming to this specification, shall be clearly marked as seconds if packaged for resale at retail.

9. Certification

9.1 When specified in the purchase order or contract, a manufacturer's or supplier's certification shall be furnished to the purchaser stating that samples representing each lot of the material have been manufactured, tested, and inspected in accordance with this specification and the requirements have been met.

10. Product Marking

- 10.1 Finished products up to 42 in. [1.07 m] in width shall be labeled with the following information: pattern number, lot (batch) run number, length, width, total area of material (excluding border), supplier name and address and type of material when appropriate.
- 10.2 Finished products exceeding 42 in. [1.07 m] in width shall be labeled with the following information: lot (batch), run, length, width, suppliers name and address and type of material when appropriate.
- 10.3 On a wall covering where direction of hanging is ambiguous, the manufacturer shall indicate the proper direction on each separate length.
- 10.4 Bolts classified as seconds shall be prominently labeled as such.

- 10.5 Murals shall be properly numbered for sequence of sheets. If a numbering sequence is not used, a precise layout diagram shall be provided.
 - 10.6 A split bolt shall be identified as such.

11. Product Packaging and Shipment

- 11.1 The finished products shall be packaged to prevent damage in shipment.
- 11.2 Shrink wrapping shall not be so tight that it creates product damage.
 - 11.3 Each case shall not contain more than one split bolt.

12. Catalog Information

12.1 Sample books shall include the length, width and square footage of each packaged bolt.

- 12.2 Each pattern shall be identified as to proper match and repeat if any.
- 12.3 Sample books shall state that the product conforms to this specification.

13. Keywords

13.1 backing (substrate); bias; bolt; facing; finished product; intermediate layer; lot (batch); pattern match; pattern repeat; protective layer; register; run; seconds; selvage; shading and waste edge; split bolt; wall covering

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