



Standard Practice for Evaluation of Attached Upholstery Fabrics¹

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1. Scope

1.1 This practice is to be used to evaluate specific characteristics of importance in the performance of upholstery fabric attached to a furniture unit, including woven, knitted, tufted, flocked, or vinyl fabrics.

1.2 It is understood that the fabric used to construct the upholstered furniture unit should be evaluated initially using appropriate fabric performance standards, such as Specifications D 3597 and D 3690.

1.3 Loose cushions or pillows considered an inherent part of the total furniture unit are to be evaluated using this practice.

1.4 This practice is not to be used to evaluate slipcovers or throws used as furniture coverings. Outdoor furniture coverings are not to be evaluated using this practice.

1.5 This practice shall not be construed to be a standard of performance but only as a standard practice for evaluation of attached upholstery fabrics.

1.6 This practice may be used by mutual agreement between purchaser and supplier to establish purchasing specifications.

1.7 *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:

D 123 Terminology Relating to Textiles²

D 3597 Specification for Woven Upholstery Fabrics—Plain, Tufted, or Flocked³

D 3690 Performance Specification for Vinyl-Coated and Urethane-Coated Upholstery Fabrics—Indoor³

D 4771 Specification for Knitted Upholstery Fabrics for Indoor Furniture³

NOTE 1—Subcommittee D13.62 on Care Labeling is preparing a terminology standard on Care Instructions for Textile Floor Coverings and Upholstery. A copy of the latest draft may be obtained from the subchairman.

2.2 AATCC Method:

AATCC Evaluation Procedure 1—Gray Scale for Color Change⁴

2.3 Other Documents:

Knit Upholstery Fabric Standards and Guidelines⁵

Woven Upholstery Fabric Standards and Guidelines⁶

3. Terminology

3.1 Definitions:

3.1.1 *attached upholstery fabric, n*—the exterior fabric covering secured to a furniture unit by the furniture manufacturer or custom upholsterer. (See *furniture covering*.)

3.1.2 *back coating, n*—in textiles, an adhesive-type substance applied to the back of a fabric for such purposes as locking pile yarn tufts into a carpet backing, bonding a secondary backing to a primary backing, or increasing fabric body or stiffness.

3.1.2.1 *Discussion*—Back coatings are applied to upholstery fabrics to improve such attributes as dimensional stability and seam integrity.

3.1.3 *cleaning agent, n*—a chemical compound or formulation of several compounds which loosen, disperse, dissolve, or emulsify soil to facilitate removal by mechanical action.

3.1.4 *furniture covering, n*—a general term for attached upholstery fabric, slipcovers, and throws.

3.1.5 *furniture unit, n*—in upholstered furniture, a complete single piece of upholstered seating, such as a sofa, love seat, lounge chair, rocker, or recliner.

3.1.6 *group, n*—in upholstered furniture, a number of individual upholstered furniture units that are related by one or more physical characteristics such as styling, color, shape, or covering.

3.1.7 *overall cleaning, n*—for upholstered furniture, the application of an appropriate cleaning agent to the entire fabric

⁴ Available from Association of Textile Chemists and Colorists, P.O. Box 12215, Research Triangle Park, NC 27709.

⁵ Issued in 1982 by the Joint-Industry Fabric Standards Committee, sponsored by National Association of Furniture Manufacturers, California Furniture Manufacturers Association, Southern Furniture Manufacturers Association, Southwest Furniture Manufacturers Association, and Furniture Manufacturers Association of Grand Rapids. Available from American Furniture Manufacturers Association, P.O. Box HP-7, High Point, NC 27261.

⁶ Reissued in 1986 by the Joint-Industry Fabric Standards Committee including American Furniture Manufacturers Association, California Furniture Manufacturers Association, Furniture Manufacturers Association of Grand Rapids, Association of Western Furniture Suppliers, and Home Furnishings Manufacturers Association. Available from American Furniture Manufacturers Association, P.O. Box HP-7, High Point, NC 27261.

¹ This practice is under the jurisdiction of ASTM Committee D-13 on Textiles and is the direct responsibility of Subcommittee D13.63 on Home Furnishings.

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² *Annual Book of ASTM Standards*, Vol 07.01.

³ *Annual Book of ASTM Standards*, Vol 07.02.

covering, accomplished while the upholstery fabric remains attached to the furniture unit.

3.1.8 *part, n*—in upholstered furniture, one component of a furniture unit, such as a seat, back, pillow, or arm cushion.

3.1.9 *refurbish, v*—as applied to textile products, to brighten or freshen up and restore to wearability by cleaning, such as dry cleaning, laundering, or steam cleaning.

3.1.10 *slipcover, n*—a removable, fitted protective textile cover, often decorative and specifically made for upholstered furniture. (See *furniture covering*.)

3.1.11 *spot and stain removal, n*—a cleaning procedure for localized areas with cleaning agents and mechanical action specific to the removal of the foreign substances present. (*Syn.* spot clean.)

3.1.12 *throw, n*—a removable, unfitted protective textile cover, used over upholstered furniture. (See *furniture covering*.)

3.1.13 *tufting, n*—in upholstered furniture, localized indentation of upholstered furniture surfaces and cushions, by the use of or appearance of buttons, providing an aesthetic treatment.

3.1.14 *upholstered furniture, n*—furniture covered with such materials as textiles or leather, and generally with padding or cushions or both.

3.1.15 *vacuum, v*—to clean using an electrically powered machine to create suction in order to remove loose, particulate soil and lint.

3.1.16 *welted seam, n*— in upholstered furniture, seam sewn with a strip of covered cord between the two fabric pieces, joined so that the welting shows on the exterior of the furniture unit.

3.1.17 *welting, n*—in upholstered furniture, a cord covered by strips of exterior fabric, used in welted seams of upholstery covering.

3.1.18 For definitions of other textile terms used in this standard, refer to the individual ASTM standards, AATCC Test Methods, and ASTM Terminology D 123.

4. Significance and Use

4.1 This practice may be used to evaluate pertinent performance characteristics of attached upholstery fabrics.

4.2 Loose cushions or pillows considered an inherent part of the total upholstered furniture unit are to be evaluated using this practice.

4.3 This practice is not intended for use with outdoor furniture nor with slipcovers or throws.

4.4 Evaluation is to be done both before and after the refurbishing procedures, as directed in voluntary care labeling instructions or as agreed upon between purchaser and supplier.

4.5 The specified cleaning and maintenance procedures herein discussed do not reflect professional care designed to enhance the performance of furniture coverings, such as the application of soil and stain protectants. Reflected in this practice are the minimum capabilities of current cleaning methods used in accordance with any voluntary care labeling instructions accompanying the furniture.

4.6 The characteristics to be evaluated and the acceptance criteria assigned to these areas shall be set by mutual agreement between purchaser and supplier.

4.7 The significance and use of specific properties are discussed in the appropriate test methods and performance standards.

5. Sampling, Selection, and Number of Specimens

5.1 *Lot Sample*—Take a lot sample as directed in an applicable material specification or as agreed between the purchaser and the supplier. In the absence of an applicable material specification or prior agreement, randomly sample one furniture unit of each type to be tested. Treat the lot sampling units as the laboratory sampling units.

NOTE 2—In many instances, only one furniture unit may be available due to styling, cost, size, or being a one-of-a-kind unit.

5.2 *Test Specimens*—From each laboratory sampling unit, make the number of observations as directed in the applicable test methods. Make the observations on the furniture units as they would have reached the customer.

CHARACTERISTICS AND TEST METHODS

6. Selection of Characteristics

6.1 The characteristics to be evaluated and the acceptance criteria assigned to these areas shall be set by mutual agreement between purchaser and supplier.

7. Fabric Performance Characteristics

7.1 Evaluate the selected upholstery fabric before it is attached to the furniture unit, using the appropriate performance specification methods as directed in Specifications D 3597, D 3690, D 4771 or the Knit and Woven Upholstery Fabric Standards, as agreed upon by purchaser and supplier.

8. Evaluation of Attached Upholstery Fabric Prior to Refurbishing

8.1 *General*—The attached furniture covering characteristics to be evaluated prior to refurbishing may include, but are not limited to: matching (such as pattern and pile direction); uniformity of shade (part to part); visual appearance of furniture unit (seams, welting, tufting); compatibility of furniture units within a group; and any obvious defects.

8.1.1 For all visual evaluations use a light source as agreed upon between purchaser and supplier.

8.2 *Matching*—Evaluate matching of such items as pattern and pile direction, and shade uniformity (part to part) following the procedures in “Pattern Repeat, Color and Shade” of the Woven Upholstery Fabric or Knit Upholstery Fabric Standards and Guidelines.

8.3 *Visual Appearance*—Evaluate the appearance of the furniture unit including seams, welting, and tufting, as mutually agreed upon by purchaser and supplier.

8.4 *Compatibility Within a Group*—Evaluate visually the compatibility of furniture units within a group, as mutually agreed upon between purchaser and supplier.

8.5 *Other Defects*—Examine the attached textile furniture covering for any other obvious defects.

9. Refurbishing Conditions

9.1 The refurbishing of attached upholstery fabric may involve either overall cleaning, spot cleaning, or vacuuming, as

directed by instructions on voluntary care labeling or as agreed upon between purchaser and supplier.

9.1.1 Voluntary care instructions should be one of those described in the Cleanability Codes of the Woven or Knit Upholstery Fabric Standards and Guidelines, where:

W—Clean only with water based shampoo or foam upholstery cleaner. Do not overwet. Do not use solvents to spot clean. Pile fabrics may require brushing to restore appearance. Cushion covers should not be removed and laundered.

S—Clean only with dry cleaning solvent. Do not saturate. Do not use water. Pile fabric may require brushing to restore appearance. Cushion covers should not be removed and dry cleaned.

WS—Clean with shampoo, foam, or dry cleaning solvents as desired. Do not saturate with liquid. Pile fabrics may require brushing to restore appearance. Cushion covers should not be removed and dry cleaned.

X—Do not clean with either water base or solvent base cleaners. Use vacuuming and light brushing only.

9.1.2 Furniture cushion covers having zippers or other closures should never be removed for the refurbishing process.

9.1.3 If vacuuming is the selected refurbishing method, report the equipment and details of the procedures used.

9.1.4 If overall cleaning or spot cleaning are the selected refurbishing methods, choose an appropriate type of cleaning agent (solvent based or water based) as directed by the voluntary care instructions.

9.1.4.1 The specific cleaning product used shall be a domestically available upholstery cleaning product, used as recommended by the manufacturer.

9.1.5 Complete the refurbishing treatment once, or as many times as specified.

9.2 After the refurbishing treatment, allow the furniture unit to stand 24 h or until dry, and evaluate using the test methods as directed in Section 10.

10. Evaluation of Attached Upholstery Fabric After Refurbishing

10.1 The characteristics of attached upholstery fabric to be evaluated after refurbishing may include, but are not limited to: color change; visual appearance of the furniture units; compat-

ibility of furniture units within a group; and other characteristics as agreed upon between purchaser and supplier.

10.1.1 Determine color change caused by the refurbishing process by using the AATCC Gray Scale, when appropriate.

10.2 Evaluate the appearance of the furniture unit by noting color change, seams, welting, tufting, yarn appearance and slippage, as agreed upon between purchaser and supplier.

10.3 Evaluate compatibility of furniture units within a group by noting changes in appearance, color and texture, as agreed upon between purchaser, and supplier.

10.4 Examine upholstery fabric for any other obvious changes.

REPORT, CONFORMANCE, AND INDEXING

11. Report

11.1 State that the specimens were tested as directed in Practice D 4852.

11.2 Report the following information:

11.2.1 Objective of the test.

11.2.2 Description and identification of furniture units and upholstery fabric coverings.

11.2.3 Number of furniture units tested.

11.2.4 Description of refurbishing products and procedures used.

11.2.5 Specific details of each test, where there is an option in procedures, or when purchaser and supplier have reached a mutual agreement on procedure.

11.2.6 List of performance characteristics evaluated and the results of each evaluation.

11.2.7 Conclusions, if appropriate.

12. Conformance

12.1 When the purchaser and the supplier have agreed upon specific requirements for the characteristics that are to be considered, the upholstered furniture that fails to meet these requirements may be rejected. Rejection should be reported to the supplier in writing. In case of disagreement with the results of the tests, the supplier may make claim for a retest.

13. Keywords

13.1 furniture; upholstery

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