Flammability

ACT Voluntary Performance Guidelines and Test Method Descriptions for Coated Fabrics


To give architects, designers, and end-users a vast amount of performance information in a succinct visual way, ACT developed icons to indicate that a fabric meets or exceeds guideline requirements. Look for these Registered Certification Marks on ACT Member Company sampling to assure that the fabrics you specify perform up to contract standards and pass all applicable testing.

All ACT Voluntary Performance Guidelines cover both woven and coated fabrics for indoor use. “Coated Fabrics” typically consist of one or more layers of a film-forming polymer such as vinyl, silicone or polyurethane supported by a fabric or similar substrate.

Test methods included in the Guidelines measure coated fabric performance under standard laboratory conditions and are intended to represent the most current test version. Note: Individual ACT Member product information may represent a different version of a test method depending on the date the product was introduced to market.

Important: These tests represent minimum requirements, which are subject to change without notice and may not reflect requirements or laws in all locations. See information and disclaimer on page 4.

---

Flammability

The measurement of a coated fabric's performance when it is exposed to specific sources of igniton.

Note: ACT guidelines specify different flammability tests dictated by the intended end use for the fabric.

**Upholstery**
California Technical Bulletin 117-2013 Section 1 – Pass

**Direct Glue Wallcoverings and Adhered Panels**
ASTM E84 (Adhered Mounting Method) – Class A or Class 1

**Wrapped Wall Panels and Upholstered Walls**
ASTM E84 (Unadhered Mounting Method) – Class A or Class 1
TEST METHODS

California Technical Bulletin 117-2013*
California Technical Bulletin 117-2013 Section 1 is a test method of the California Bureau of Electronic and Appliance Repair, Home Furnishings and Thermal Insulation. The test uses small cushions, which are miniatures of the seat and back, to measure the smolder resistance of the materials used in upholstered furniture.

Section 1: Cover Fabric Test
Upholstery cover materials submitted for this section are placed over standard polyurethane foam and tested in triplicate. A lighted cigarette is placed in the crevice formed by the vertical back and horizontal seat cushions. Smoldering resistance is measured by the following criteria:

1. Smoldering cannot exceed 45 minutes of test duration
2. Vertical char length cannot exceed 1.8 inches (45 mm)
3. Mock-up specimen cannot transition into open flame

All three mock-up specimens must meet all three criteria in order for the cover fabric to pass the Section 1 test.

Note: Fabrics that do not pass the Section 1: Cover Fabric Test can be used with a barrier that passes the Section 2: Barrier Materials Test to satisfy the requirements of California TB 117-2013.


For a helpful FAQ document written by the State of California: http://www.bearhfti.ca.gov/about_us/tb117_faqs.pdf
ASTM E84* Tunnel Test
The ASTM E84 test is a test method of the American Society for Testing and Materials (ASTM). Commonly called the Tunnel Test, this test can be performed under two different methods “adhered” or “non-adhered” where the only difference is in specimen preparation:

**Adhered:** The fabric is bonded to either a CA board substitute or gypsum board. This is the prescribed method for wall coverings whose actual use will be “adhered”.

**Non-adhered:** If the fabric is a panel fabric or upholstered walls, it is tested in a frame without being bonded to any other material.

In each instance (adhered and non-adhered), the fabric is placed in the ceiling of the test tunnel and subjected at one end to a high intensity flame which spreads over the first 4.5 feet of the 24-foot test specimen.

The distance of flame front progression and total burning time are used to calculate a “flame spread index.” Smoke monitors are used to calculate a “smoke developed” value. The flame spread index and smoke developed value are calculated from the results of the test fabric compared to the characteristics of cement board and red oak materials resulting in the indexes.

Typically, the code classes are as follows:

- **Class A:** Flame Spread Index of 25 or less and Smoke Developed value of 450 or less
- **Class B:** Flame Spread Index of 26 to 75 and Smoke Developed value of 450 or less
- **Class C:** Flame Spread Index of 76 to 200 and Smoke Developed value of 450 or less

**Caution:** The ASTM E84 test is only valid if the fabric or vinyl wall covering is used in a sprinklered occupancy. If not, the Room Corner Test (NFPA 265 for fabrics; and NFPA 286 for vinyl) is mandated in many jurisdictions.

*For complete technical details about ASTM E84: http://www.astm.org*
IMPORTANT INFORMATION AND DISCLAIMERS REGARDING ACT’S VOLUNTARY PERFORMANCE GUIDELINES

As noted above, ACT’s Voluntary Performance Guidelines (“Guidelines”) and associated symbols (“Marks”) are for information purposes only and are made available to help assist specifiers and end-users in evaluating certain characteristics of contract textiles.

Neither the Guidelines, nor the Marks constitute any promise, representation or warranty that a product or sample that bears or to which a Mark is referenced will in fact comply with applicable federal, state, or municipal laws, codes, rules and regulations concerning the intended use of such product (“Laws”), nor any assurance, representation or guarantee regarding or relating in any manner to the safety of any product or sample that bears or, to which a Mark is referenced.

Whenever appropriate, specifiers and end users should seek the advice of professionals or other knowledgeable persons to ascertain whether a product will in fact comply with applicable Laws.

Understand that the testing and standards (“Standards”) referenced in the Guidelines are developed and promulgated by third parties not associated with ACT, and that these Standards often change or are supplemented by such third parties. Accordingly, the fact that a particular Standard is referenced in the Guidelines (and/or associated with any Mark) does not mean, nor is it intended to be a representation that Standard is the most current one.

It is the responsibility of the contract textile vendor and/or the manufacturer (not ACT) to determine in all instances whether or not a textile meets each of the Standards to which a particular Mark is referenced.

THE ASSOCIATION FOR CONTRACT TEXTILES EXPRESSLY DISCLAIMS LIABILITY TO ANY AND ALL PERSONS AND ENTITIES FOR PERSONAL INJURY, PROPERTY DAMAGE, AND ANY OTHER DAMAGE OF ANY KIND OR NATURE, (WHETHER OR NOT SUCH DAMAGES ARE DIRECT, INDIRECT, CONSEQUENTIAL OR COMPENSATORY) RESULTING FROM, OR IN ANY WAY RELATING TO THE GUIDELINES AND MARKS.

The marks ☯ ☯ ☯ ☯ ☯ are Registered Certification Marks at the US Patent and Trademark Office and are owned by the Association for Contract Textiles, Inc.