



association  
for contract  
textiles

## Flammability ACT Voluntary Performance Guidelines and Test Method Descriptions for Coated Fabrics

ACT Voluntary Performance Guidelines for Flammability and four aspects of coated fabric durability—Wet & Dry Crocking, Colorfastness to Light, Physical Properties, and Abrasion—make coated fabric specification easier.

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 ignition.

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

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#### **Upholstery**

California Technical Bulletin 117-2013 Section 1 – Pass

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#### **Direct Glue Wallcoverings and Adhered Panels**

ASTM E84 (Adhered Mounting Method) – Class A or Class 1

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#### **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 complete technical details about Cal TB 117-2013: [http://www.bearhfti.ca.gov/about\\_us/tb117\\_2013.pdf](http://www.bearhfti.ca.gov/about_us/tb117_2013.pdf)

For a helpful FAQ document written by the State of California: [http://www.bearhfti.ca.gov/about\\_us/tb117\\_faqs.pdf](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>



## **Flammability** **ACT Voluntary Performance Guidelines and** **Test Method Descriptions for Coated Fabrics**

### **IMPORTANT INFORMATION AND DISCLAIMERS REGARDING ACT'S VOLUNTARY PERFORMANCE GUIDELINES**

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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.

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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.

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