

## ASTM E 84

### Standard test method for surface burning characteristics of building materials.

The flame spread Index and Smoke Developed Index values obtained by the ASTM E 84 test are used by code officials and regulatory agencies in the acceptance of interior finish materials for various applications. The most widely accepted classification system is described in the National Fire Protection Association publication NFPA 101 *Life Safety Code*

#### 1. 2006 International Building Code

a. Section 803 Wall and Ceiling Finishes, Paragraph 803.1 General states, "Interior wall and ceiling finishes shall be classified in accordance with ASTM E- 84. Such interior finish materials shall be grouped in the following classes in accordance with their flame spread and smoke-developed indexes.

i. Class A: Flame Spread 0-25; smoke-developed 0-450

ii. Class B: Flame Spread 26-75; smoke-developed 0-450

iii. Class C: Flame Spread 76-200; smoke-developed 0-450

Class A, B, and C correspond to type I, II, and III respectively in other codes such as SBCCI, BOCA, ICBO. They do not preclude a material being otherwise classified by the authority of jurisdiction.

#### 2. NFPA 101®, Life Safety Code®

a. Chapter 10 Interior Finish, Contents, and Furnishings, Paragraph 10.2.3 Interior Wall or Ceiling Finish Testing and Classification states, "Interior wall or ceiling finish that is required elsewhere in this Code to be Class A, Class B, or Class C shall be classified based on test results from NFPA 255, ASTM E-84, or UL 723."