

1. Test method

- **ASTM E 84**

Surface Building Characteristics of Building Materials

- **Sample preparation and conditioning:**

Three pieces of sample were placed into the fire chamber end to end supported on screen and rods, to form a 21 inches wide X 24 feet long for testing, than was covered with inorganic cement boards to protect the chamber lid.

- **Test procedure:**

The tunnel was thoroughly pre-heated by burning natural gas. When the brick temperature, sensed by a floor thermocouple, had reached the prescribed 105° Fahrenheit +/-5° Fahrenheit level, the sample was inserted in the tunnel and test conducted in accordance with the standard ASTM E84-09 procedure.

The operation of the tunnel was checked by performing a 10-minute rest with inorganic board on the day of the test.

- **Rating:**

The National Fire Protection Association Life Safety Code 101, Section 6-5.3, “Interior Wall and Ceiling Finish Classification”, has a means of classifying materials with respect to Flame Spread and Smoke Developed when tested in accordance with NFPA 255, “Method of Test of Surface Burning Characteristics of Building Materials” (ASTM E84).

FLAME SPREAD	SMOKE DEVELOPED	RATING
0 – 25	0 - 450	Class A
26 - 75	0 - 450	Class B
76 - 200	0 - 450	Class C

2. Test result

- **Flame Spread : 10**
- **Smoke Developed : 180**
- **Rating : Class A**

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