

1. Test method

- **ASTM E 84**

(Surface Burning Characteristics of Building Materials)

- **Sample preparation and conditioning:**

Three(3) panels (1/2" thick measuring 2' x 8') were fitted end-to-end to form a 24" x 24'0" sample.

Because the sample was self-supporting, no further preparation was necessary.

The sample was conditioned at 73 +/- 5°F and 50% RH.

- **Test procedure:**

The tunnel was thoroughly pre-heated, using natural gas. When the brick temperature, sensed by a floor thermocouple, had reached the prescribed 105 +/- 5°F level, the sample was inserted into the tunnel and the test conducted in accordance with the standard ASTM E 84 procedures. The operation of the tunnel was checked by performing 10 minute test 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 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 E 84).

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 : 10**

- **Rating : Class A / Class 1**

- **Reference**

ITEM	FLAME SPREAD	SMOKE DEVELOPED
Wallboard, Gypsum	15	0
Wood particle board	155	200
Fiberglass reinforced panels	70	500+
Laminates, Plastic	70	35
Wall covering, Interior	25	15
Hardboard	150	400

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