

# ACM Flame & Smoke Density



## 1) SAMPLE DETAILS

Name	Aluminum Composite Panel
Color	Grey

Exposed Face: The front face

## 2) MOUNTING METHODS

- a) The specimen was self-supporting and placed directly on the inner ledges of the funnel.
- b) The specimen consisted of 3 pieces of 600mm width x 2440mm length x 4.1mm thickness and all sections joined end-to-end.

## 3) TEST RESULTS

FSI	SDI
5	200

## 4) RATING

- a) The National Fire Protection Association Life Safety Code 101, Chapter 10, Section 10.2.3 "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, ASTM E84, UL 723 "Method of Test of Surface Burning Characteristics of Building Materials".
- b) International Building Code, Chapter 8, Interior Finishes, Section 803 "Wall and Ceiling Finishes" was classified in accordance with ASTM E84 or UL 723. Such interior finish materials shall be grouped in the following classes in accordance with their flame spread and smoke-developed indexes.

## 5) CLASSIFICATIONS

	Class A	Class B	Class C
Flame-Spread Index	0-25	26-75	76-200
Smoke-Developed Index	0-450	0-450	0-450

Since the tested sample received a Flame Spread Index 5 and a Smoke Developed Index 200, it would meet the requirement of Class A interior Wall & Ceiling Finish Category.

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## 6) OBSERVATIONS

Time to ignition (sec)	98
Time to Max. FS (sec)	120
Maximum FS (feet)	1

### a) Tested Items, Method and Results:

i) Test Method: ASTM E84-16 Standard Test Method for Surface Burning Characteristics of Building Materials

### b) Specimen Mounting Method:

i) The 24.0-ft long test specimen consisted of three 8.00-ft long x 24.02-in wide x 0.16-in thick "Aluminum Composite Panel, model of 4mm".

ii) Specimen was self-supporting. The white face was exposed to the flames.

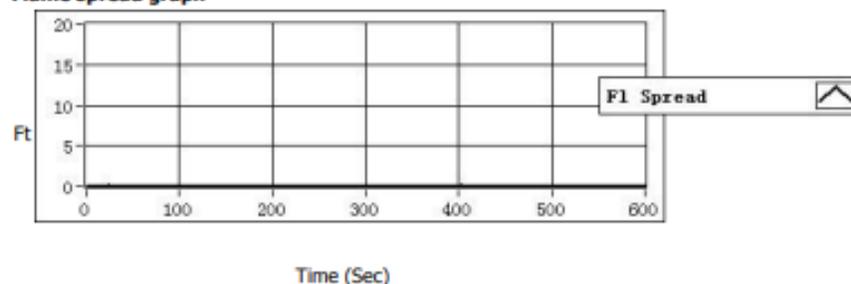
### Test Observation (min:sec)

Melting	Blistering	Transient Ignition	Steady Ignition	Flaming Drops
/	/	/	/	/
Delamination	Sagging	Shrinkage	Falling	Floor Flame
/	0:51	/	/	/

### Test Result

Flame Spread Index (FSI)	0	Smoke Developed Index (SDI)	5
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**Flame spread graph**



**Smoke developed graph**

