

Class A Fire Rating Certificate · United States

ASTM E84-05

molo soft collection

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ASTM E84-05 · United States

Standard Test Method for Surface Burning Characteristics of Building Materials

moloch black PaperStone® products have achieved a Class A fire rating testing under the North American standard ASTM E84-05.

ASTM E84, also known as the Standard Test Method for Surface Burning Characteristics of Building Materials, is a fire testing standard used to assess how materials react to fire. It measures two main factors: the Flame Spread Index (FSI), which indicates how quickly flames travel across the surface, and the Smoke Developed Index (SDI), which quantifies the amount of smoke generated.

According to ASTM, the purpose of this test method is to determine the relative burning behavior of the material by observing the flame spread along the specimen. Flame Spread Index (FSI) and Smoke Development Index (SDI) are reported for a given sample. However, there is not necessarily a relationship between these two measurements. FSI is the measurement for the speed at which flames progress across the surface of the sample, while SDI measures the amount of smoke a sample emits as it burns. Code officials, designers, and architects use the FSI and SDI results to determine if the product meets applicable building codes requirements based on the results of this test. Most commonly, results are correlated as shown in the chart below for interior finishes (Reference Chapter 6 of the International Building Code).

ASTM E84-05 test classifications are subdivided as follows:

Class A:

Flame-Spread Index (FSI) - 0-25

Smoke Development Index (SDI) - 450 Maximum

Class B:

Flame-Spread Index (FSI) - 26-75

Smoke Development Index (SDI) - 450 Maximum

Class C:

Flame-Spread Index (FSI) - 76-200

Smoke Development Index (SDI) - 450 Maximum

<https://www.intertek.com/building/standards/astm-e84/>

All products should always be kept away from any open flame or heat source to avoid possible damage.

Universal Laboratory, Inc.

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1726 Commerce St.
Garland, Texas 75040-6710

Date: 2-23-2016

TEST REPORT

Test No.: 41035

For: PaperStone Products
2999 John Stevens Way
Hoquiam, WA 98550

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Contact: Mike Miller

Background: PaperStone Products submitted 2' x 20' of panels for Flame Spread Test Per ASTM E84 2015b and Smoke Generation. Delivered to ULI in good condition on 2-09-2016. All testing and sample preparation performed by Universal personnel with no outside services required. The following information is provided:
Order Entry Log Date: 2/09/2016 Log #482132

Scope: ASTM E84 – 15b 1.2 The purpose of this test method is to determine the relative burning behavior of the material by observing the flame spread along the specimen. Flame spread and smoke developed index are reported. However, there is not necessarily a relationship between these two measurements.

Product Identification: Color: SLATE PANELS 21" Wide X 20' Long for ASTM E 84 Testing

Test Results: Material:	Composite	Identified as: SLATE (Black)
Thickness:	1/2"	
Calibration Media	Red Oak/Cement Board	
Moisture:	4.5%	
Draft Inches:	.75	
Leakage Test:	Acceptable	
Air Velocity Average Ft/Min:	140	
Gas:	Propane	
Preheat Temperature:	485°F	
Flame Spread Index	105	
Smoke Generation (SDI) (Density)	195	
Flame Spread	8'	

Observation: Ignition Time:	120 Seconds
Time to Max:	15 Minutes
Charring:	Mostly
Dripping:	None

CONCLUSION: Meets Class A for Flame Spread of 25 or Less.

Note: "We certify that all portions of each test performed were under continuous, direct supervision of this laboratory."


Charles Stanley, Director