



**Acoustic and Insulation
Product Testing Laboratories**

2790 Columbus Road, Granville, OH 43023

Client: Kinetics Noise Control, Inc.

Attn.: redacted

6300 Irelan Place

Dublin, OH 43017

REPORT NO. A170001b

Proposal NO. A17001

Date: July 5, 2017

Title: Characterization of Kinetics™ KNM – 100 AL tested per ASTM E84

Type of Service: **Material Characterization**

Purpose:

Determine the surface burning characteristics of Kinetics™ KNM – 100AL as tested per ASTM E84-15b.

Data for this report was obtained under Work Order A17001.

Samples Submitted:

1. Kinetics™ KNM – 100AL Foil faced 1lb. limp mass vinyl barrier only,
Description – 1pc, 24-ft. length, 23.5-in. wide.

Summary of Test Results:

Physical Property	Test Method	Result
Surface Burning	ASTM E84	Sample 1: Kinetics™ KNM – 100AL Foil faced 1-lb. limp mass vinyl barrier only Flame Spread Index = 25 Smoke Developed Index = 250



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Testing Method:**ASTM E84**

The results described in this report were obtained per ASTM E84-15b Standard Test Method for SURFACE BURNING CHARACTERISTICS OF BUILDING MATERIALS; Volume 04.07 of the American Society for Testing and Materials (ASTM). This procedure is the responsibility of ASTM Committee E5 on Fire Standards.

ASTM E84 describes a method for determining the comparative surface burning behavior of building materials. This test is applicable to exposed surfaces such as walls and ceilings, and is evaluated in the ceiling position with the test surface exposed face down to the ignition source. The material, product, or assembly must be capable of being mounted in the test position by either being self-supporting by its own structural quality, or held in place by added supports along the test surface, or secured from the back side.

Test specimen size per test:

Width between 20 to 24 inches; Length 24 feet; Maximum Thickness 4-in.

(Width between 508 to 610 mm; Length 7.3 meters; Maximum Thickness 101 mm)

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.

ASTM E84 is also published under the following designations:

- UL 723
- ANSI 2.5
- UBC 8-1 (42-1)

ASTM Caveat

This standard should be used to measure and describe the properties of materials, products, or assemblies in response to heat and flame under controlled laboratory conditions and should not be used to describe or appraise the fire hazard or the fire risk of the materials, products, or assemblies under actual fire conditions. However, results of this test may be used as elements of a fire risk assessment which takes into account all of the factors which are pertinent to an assessment of the fire hazard of a particular end use.

Accuracy and Accreditation

Consult ASTM Test Method E84 for the Precision and Bias of these tests. Data listed in ASTM Test Method E84, Table 1, Within-Laboratory (Repeatability), and Table 2, Between-Laboratory (Reproducibility) were calculated in accordance with ASTM Practice E691 and ISO 5725. These tables address the precision on Flame Spread Index. At this time there is no data presented addressing Smoke Developed Index.

Test Results

ASTM E84-15b

Sample	Description	Flame Spread Index	Smoke Developed Index
1	Kinetics™ KNM – 100AL Foil faced 1lb. limp mass vinyl barrier only		
Test 1		25	250

Continuous or Sectioned Sample


Sample consisted of one continuous piece at 24-ft. in length.

Mounting Method

Sample was supported using 0.25-in thick, 1-in wide steel bars

Test Dates

3/8/17



Digitally signed by Bragg, Jason
 DN: dc=com, dc=owenscorning, dc=corp, dc=na, ou=NAUsers, ou=US, ou=OH, ou=Granville, cn=Bragg, Jason, email=Jason.Bragg@owenscorning.com
 Date: 2017.10.10 07:00:53 -04'00'

Jason C. Bragg
 Owens Corning
 Acoustic and Insulation Product
 Testing Laboratories



Digitally signed by Kevin
 DN: cn=Kevin, o=Owens Corning, ou=Acoustic and Insulation Product Testing Laboratories, email=kevin.herreman@owenscorning.com, c=US
 Date: 2017.10.09 14:05:39 -04'00'

Kevin Herreman
 Owens Corning
 Acoustic and Insulation Product
 Testing Laboratories