Title: Characterization of Kinetics™ Sound Damp2 tested per ASTM E84

Type of Service: Material Characterization

Purpose:

Determine the surface burning characteristics of Kinetics™ Sound Damp2 as tested per ASTM E84-15b.
Data for this report was obtained under Work Order A160026.

Samples Submitted:

1. Kinetics™ Sound Damp2 Constrained Layer Viscoelastic Damping Compound adhered to 0.25-in. thick HardiBacker cement board substrate
   Description – 6pcs, 48-in. length, 23.5-in. wide and 0.25-in. thick.

Summary of Test Results:

<table>
<thead>
<tr>
<th>Physical Property</th>
<th>Test Method</th>
<th>Result</th>
</tr>
</thead>
</table>
| Surface Burning         | ASTM E84     | Sample 1: Kinetics™ Sound Damp2 Constrained Layer Viscoelastic Damping Compound adhered to 0.25-in. thick HardiBacker cement board substrate
Flame Spread Index = 15
Smoke Developed Index = 45 |
**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*

<table>
<thead>
<tr>
<th>Sample</th>
<th>Description</th>
<th>Flame Spread Index</th>
<th>Smoke Developed Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kinetics™ Sound Damp2 Constrained Layer Viscoelastic Damping Compound adhered to 0.25-in. thick HardiBacker cement board substrate</td>
<td>15</td>
<td>45</td>
</tr>
</tbody>
</table>

**Continuous or Sectioned Sample**

Sample consisted of six sectioned pieces, pieces were 48-in. in length, 0.25-in thick butted end-to-end.

**Mounting Method**

Sample was self-supporting

**Test Dates**

5/18/16

**Signature On File**

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