



**REPORT NUMBER: 101732197COQ-001(b)**  
ORIGINAL ISSUE DATE: July 18, 2014  
REVISION DATE: July 21, 2017

**EVALUATION CENTER**  
Intertek Testing Services NA Ltd.  
1500 Brigantine Drive  
Coquitlam, BC V3K 7C1

**RENDERED TO**

**Barriertek Inc.**  
**14966 114 Avenue**  
**Edmonton, AB.**  
**T5M 4G4**

PRODUCT EVALUATED: Attek 2.0 Intumescent Coating applied at 80grams /ft<sup>2</sup>  
61ft<sup>2</sup> gallon 18.3 Wet Mils  
EVALUATION PROPERTY: Surface Burning Characteristics

**Report of testing Attek 2.0 Intumescent Coating applied at 80grams ft<sup>2</sup> 61ft<sup>2</sup> gallon 18.3 Wet Mils for compliance with the applicable requirements of the following criteria: ASTM E2768-11, *Standard Test Method for Extended Duration Surface Burning Characteristics for Building Materials (30 min Tunnel Test)***

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# TEST REPORT

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## 2 Introduction

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Intertek Testing Services NA Ltd. (Intertek) has conducted testing for Barriertek Inc., to evaluate the surface burning characteristics of Attek 2.0 Intumescent Coating applied at 80grams /ft<sup>2</sup> 61/ft<sup>2</sup> gallon, 18.3 Wet Mils applied to 3/8 in. thick Orientated Strand Board (OSB). Testing was conducted in accordance with the standard methods of ASTM E2768-11, *Standard Test Method for Extended Duration Surface Burning Characteristics for Building Materials (30 min Tunnel Test)*.

This evaluation began July 11, 2014, and was completed the same day.

## 3 Test Samples

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### 3.1. SAMPLE SELECTION

Samples were submitted to Intertek directly from the client and were not independently selected for testing. The test specimen identification is as provided by the client and Intertek accepts no responsibility for any inaccuracies therein. The samples were received at the Evaluation Centre on July 9, 2014.

### 3.2. SAMPLE AND ASSEMBLY DESCRIPTION

Upon receipt of the samples at the Intertek Coquitlam laboratory, they were placed in a conditioning room where they remained in an atmosphere of  $23 \pm 3^{\circ}\text{C}$  ( $73.4 \pm 5^{\circ}\text{F}$ ) and  $50 \pm 5\%$  relative humidity.

The specimens consisted of 24 in. wide by 96 in. long by 3/8 in. thick coated OSB panels, and were identified by the client as Attek 2.0 Intumescent Coating applied at 80grams /ft<sup>2</sup> 61/ft<sup>2</sup> gallon, 18.3 Wet Mils.

For this trial run, three 8 ft. long panels were placed on the upper ledge of the flame spread tunnel, with the intumescent coated face oriented towards the flame, and butted together to form the required 24 ft. sample length. A layer of 6mm reinforced cement board was placed over top of the samples, the tunnel lid was lowered into place, and the samples were then tested in accordance with ASTM E2768-11.

## 4 Testing and Evaluation Methods

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### 4.1. TEST STANDARD

The results of the tests are expressed by indexes, which compare the characteristics of the sample under tests relative to that of select grade red oak flooring and inorganic-cement board.

#### (A) Flame Spread Index:

This index relates to the rate of progression of a flame along a sample in the 25 foot tunnel. A natural gas flame is applied to the front of the sample at the start of the test and drawn along the sample by a draft kept constant for the duration of the test. An observer notes the progression of the flame front relative to time. This information is plotted on a graph (flame spread curve).

The test apparatus is calibrated such that the flame front for red oak flooring passes out the end of the tunnel in five minutes, thirty seconds (plus or minus 15 seconds).

#### (B) Smoke Developed:

A photocell is used to measure the amount of light, which is obscured by the smoke passing down the tunnel duct. When the smoke from a burning sample obscures the light beam, the output from the photocell decreases. This decrease with time is recorded and compared to the results obtained for red oak, which is defined to be 100.

#### (C) Extended 20 minute Burn:

In accordance with ASTM E2768, the test must be continued for an additional 20 minutes in accordance with the general procedures of ASTM E84. At the end of the additional 20 minute period, the flame front shall be measured from the centerline of the burners.

## 5 Testing and Evaluation Results

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### 5.1. RESULTS AND OBSERVATIONS

#### (A) Flame Spread

The resultant flame spread indexes are as follows:  
(Index rounded to nearest 5)

Sample Material	Flame Spread	Flame Spread Index
3/8 in OSB with Attek 2.0 Intumescent Coating	2	0

#### (B) Smoke Developed

The areas beneath the smoke developed curve and the related indexes are as follows:  
(For smoke developed indexes 200 or more, index is rounded to the nearest 50. For smoke developed indexes less than 200, index is rounded to nearest 5)

Sample Material	Smoke Developed (value taken at 10 minutes)	Smoke Developed Index
3/8 in OSB with Attek 2.0 Intumescent Coating	48	50

#### (C) Extended 20 minute Burn

The flame front did not exceed 8.5 ft past the centreline of the burners. This result meets the requirement of the extended 20 minute burn in Section 2303.2 of the 2012 International Building Code of a maximum flame spread of 10.5 feet past the centerline of the burners

#### (D) Observations

After the sample ignited, the flame front progressed along the sample. Burn through was observed at approximately 22 minutes.

## 6 Conclusion

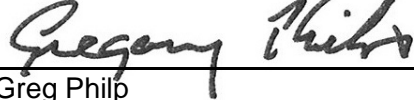
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The samples of Attek 2.0 Intumescent Coating applied at 80grams /ft<sup>2</sup> 61/ft<sup>2</sup> gallon, 18.3 Wet Mils, submitted by Barriertek Inc., met the requirements when tested in accordance with ASTM E2768-11, *Standard Test Method for Extended Duration Surface Burning Characteristics for Building Materials (30 min Tunnel Test)*.

Sample Material	Flame Spread Index	Smoke Developed Index	Maximum Flame Front after 30-minutes (ft)
3/8 in OSB with Attek 2.0 Intumescent Coating	0	50	8.5 feet

The conclusions of this test report may not be used as part of the requirements for Intertek product certification. Authority to Mark must be issued for a product to become certified.

### INTERTEK TESTING SERVICES NA LTD.

Tested and  
Reported by:   
Greg Philp  
Technician – Building Products

Reviewed by:   
Riccardo DeSantis  
Manager – Building Products

## APPENDIX A

### DATA SHEETS

### ASTM E2768-11 DATA SHEETS

ASTM E84

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Client: Barriertek  
Date: 07 11 2014  
Project Number: 101732197  
Test Number: 1  
Operator: Greg Philp  
Specimen ID: Attek 2.0 Coating on 3/8 in.OSB

#### TEST RESULTS

**FLAMESPREAD INDEX: 0**  
**SMOKE DEVELOPED INDEX: 85**

#### SPECIMEN DATA . . .

Time to Ignition (sec): 441  
Time to Max FS (sec): 533  
Maximum FS (feet): 1.4  
Time to 980 F (sec): Never Reached  
Time to End of Tunnel (sec): Never Reached  
Max Temperature (F): 598  
Time to Max Temperature (sec): 1248  
Total Fuel Burned (cubic feet): 129.00  
  
FS\*Time Area (ft<sup>2</sup>\*min): 3.5  
Smoke Area (%A\*min): 103.4  
Unrounded FSI: 1.8  
Unrounded SDI: 87.2

#### CALIBRATION DATA . . .

Time to Ignition of Last Red Oak (Sec): 41.0  
Red Oak Smoke Area (%A\*min): 118.6

TESTED BY  
*[Signature]*

REVIEWED BY  
*R.D.*

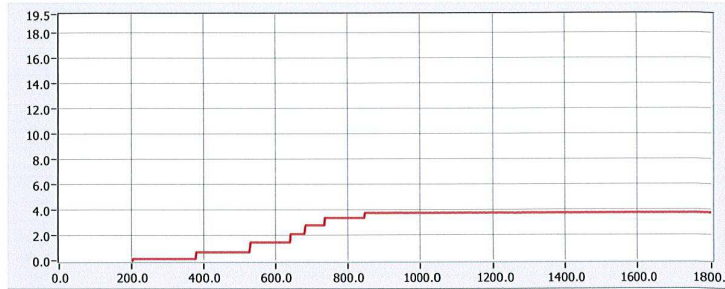


### ASTM E2768-11 DATA SHEETS

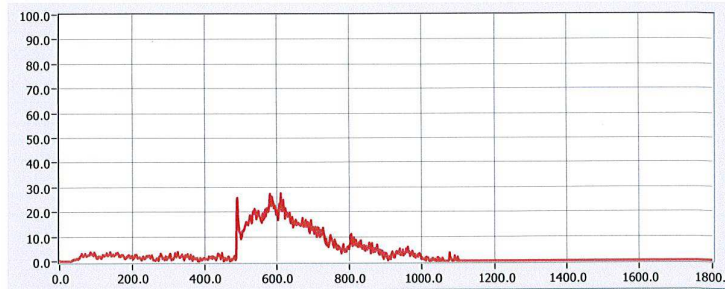
Project No: 101732197

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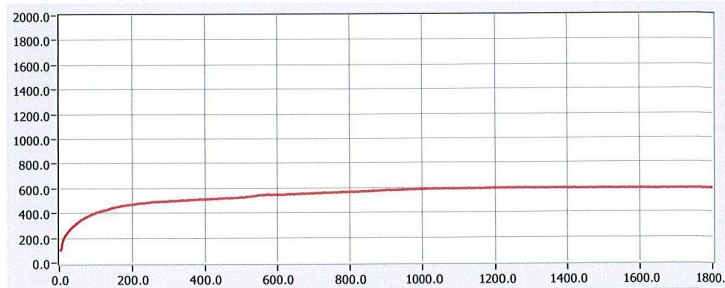
FLAME SPREAD (ft)



Smoke (%A)



Temperature (°F)



Time (sec)

600

*Jr*

*R.D.*

## REVISION SUMMARY

<b>DATE</b>	<b>PAGE</b>	<b>SUMMARY</b>
July 18, 2014	--	Original Issue Date
July 21, 2017	Cover 3&6	Added Attek 2.0 Intumescent Coating applied at 80grams /ft <sup>2</sup> 61/ft <sup>2</sup> gallon, 18.3 Wet Mils