

TEST REPORT

FOR

Finium

101 rue Industrielle
Frampton, Québec G0R 1M0
CANADA

**Standard Test Method for
Surface Burning Characteristics of Building Materials
ASTM E84 – 14**

Test Report No: FH-2570

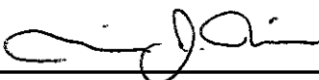
Assignment No: H-1141

Test Date: 03/30/2015

Report Date: 03/31/2015

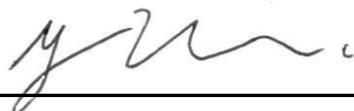
Subject Material: "Hecolo Collection" and "Olié Collection" Wall Panels

Prepared by: _____



Michael J. Rizzo
Test Engineer

Reviewed by: _____



Robert J. Menchetti
Director, Laboratory Facilities and Testing Services

The results reported in this document apply to specific samples submitted for measurement. No responsibility is assumed for the performance of any other specimen. The laboratory's test report in no way constitutes or implies product certification, approval or endorsement by this laboratory. This report may not be reproduced, except in full, without the written approval of the laboratory.

TEST REPORT REVISION HISTORY:

DATE	SUMMARY
March 31, 2015	Original issue date. Original NGCTS report FH-2570.

INTRODUCTION:

This report presents the results of specimens tested in accordance with the requirements of ASTM E84-14 Standard Test Method for Surface Burning Characteristics of Building Materials. This test method is also published under the designations UL 723, NFPA 255, and UBC 8-1.

The purpose of this test method is to determine the relative behavior of the material by observing the flame spread along the specimen. Flame spread and smoke developed indices are reported. However, there is not necessarily a relationship between these two measurements.

This standard is used to measure and describe the response of materials, products, or assemblies to heat and flame under controlled laboratory conditions. It should not alone be used for fire hazard or fire risk assessment of the materials, products, or assemblies under actual fire conditions.

TEST SAMPLES:

The test samples were submitted to NGC Testing Services (NGCTS) for testing directly by Finium of Frampton, QC, Canada. The test samples were identified by the client as:

“Hecolo Collection”
“Oilé – Maple Collection”
“Oilé – Oak Collection”

The test samples were received by NGCTS, in two separate shipments, in good condition on March 4, 2015 (Hecolo Collection) and March 12, 2015 (Oile Collection). Upon receipt, the test samples were placed in a conditioning room where they remained in an atmosphere of $73.4 \pm 5^{\circ}\text{F}$ and $50 \pm 5\%$ relative humidity until tested.

Two boxes of each test sample type were submitted, for a total of twelve (12) decorative wall panels. The submitted wall panels consisted of a solid hardwood panel face adhered to a birch plywood backing. The “Hecolo Collection” wall panels measured nominally 12 in. (304.8 mm) wide by 60 in. (1524 mm) long with a variable, total thickness of 7/32 to 5/16 in. (5.6 to 7.9 mm). The “Olié Collection” wall panels measured nominally 13.5 in. (342.9 mm) wide by 53.5 in. (1358.9 mm) long with a variable, total thickness of 1/4 to 3/8 in. (6.4 to 9.5 mm).

For each test sample, the submitted wall panels were assembled for testing by NGCTS personnel. The wall panels were inserted into one another, without attachment, and cut to produce a sample size of nominally 24 in. (610 mm) wide by 24 ft. (7315 mm) long.

MOUNTING METHOD:

For each test, 1/4 in. diameter steel rods were placed directly on the tunnel ledges and spaced 24 in. on center. The assembled test sample was laid directly on the steel rods with the wall panel face exposed to the burner flames. Non-combustible, fiber-reinforced cement board (1/4 in. thick) was placed over the test sample as lid protection.

TEST RESULTS:

The test results, computed on the basis of observed flame front advance and electronic smoke density measurements are presented in the tables below. The reported flame spread and smoke developed indices, as presented below, are the computed comparison to the standard calibration materials – mineral fiber-reinforced cement board and select grade red oak flooring. The cement board is used to establish relative 0 values for flame spread and smoke developed; red oak decks are used to establish relative 100 values for flame spread and smoke developed.

The use of supporting materials on the underside of the test specimen may lower the flame spread index from those which might be obtained if the specimen could be tested without such support.

<u>TEST NO.</u>	<u>MATERIAL TESTED</u>	<u>SIDE EXPOSED</u>	<u>SUPPORT</u>	<u>CALCULATED FLAME SPREAD</u>	<u>CALCULATED SMOKE DEVELOPED</u>	
1	Hecolo Collection	Face	Steel Rods	119.59	222.28	
2	Oilé - Maple Collection	Face	Steel Rods	120.40	173.60	
3	Oilé - Oak Collection	Face	Steel Rods	95.22	324.51	
<u>MATERIAL TESTED</u>			<u>SIDE EXPOSED</u>	<u>SUPPORT</u>	<u>FLAME SPREAD INDEX *</u>	<u>SMOKE DEVELOPED INDEX*</u>
RED OAK FLOORING		FINISHED	SELF-SUPPORTING	100	100	
REINFORCED CEMENT BOARD		SYMMETRICAL	SELF-SUPPORTING	0	0	
1	Hecolo Collection	Face	Steel Rods	120	200	
2	Oilé - Maple Collection	Face	Steel Rods	120	175	
3	Oilé - Oak Collection	Face	Steel Rods	95	300	
			<u>CLASSIFICATION</u>	<u>FSI</u>	<u>SDI</u>	
* Flame Spread / Smoke Developed Index is the result (or the average of the results of multiple tests), rounded to the nearest multiple of 5. Smoke developed results in excess of 200 are rounded to the nearest multiple of 50.			CLASS A or I	0 - 25	0 - 450	
			CLASS B or II	26 - 75	0 - 450	
			CLASS C or III	76 - 200	0 - 450	

Test Sample	Flame Spread Index (FSI)	Smoke Developed Index (SDI)
Hecolo Collection	120	200
Oilé – Maple Collection	120	175
Oilé - Oak Collection	95	300

ADC DRAFT (IN. H2O) 0.080
GAS PRESS. (IN. H2O) 0.286
GAS VOL (CF) 49.80
BTU/cf 1008
SHUTTER (IN.) 3.00
TEMP. 13' BURIED 107 F

Flame Spread: 119.59
Area under Flame Curve (ft-min): 154.03

TEST#: FH-2570-1 DATE: 3/30/2015

TEST METHOD: ASTM E84-14

CLIENT: Finium

PROJECT#: H-1141

SAMPLE: Hecolo Collection

MATERIAL: 24 in. x 24 ft.

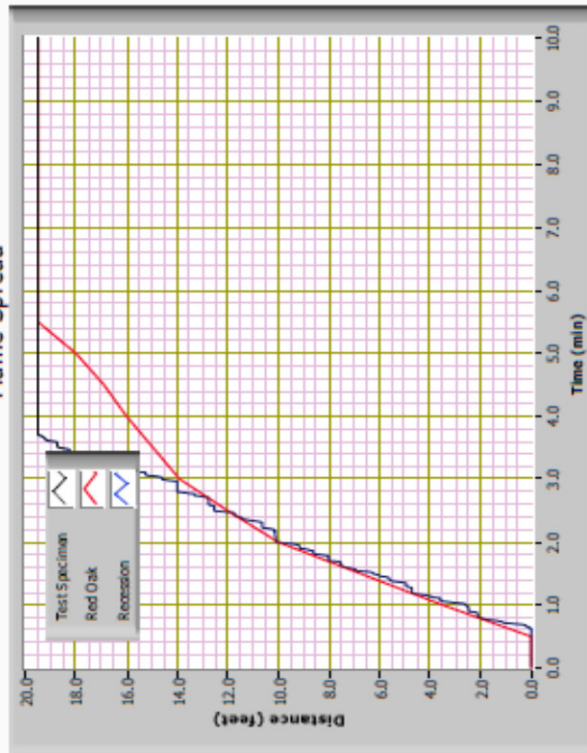
SUPPORT: Steel Rods

REMARKS: Ignition Time: 0:30

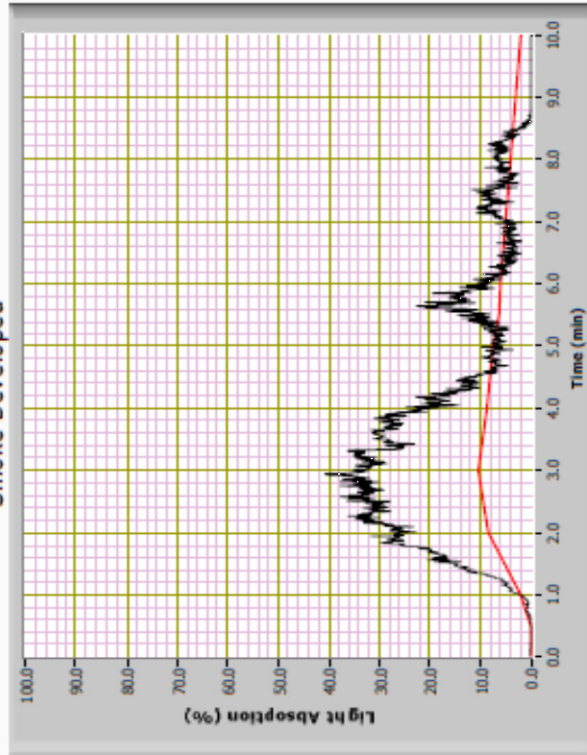
Max Flame Front: 19.50 FT. @ 3:42

Smoke Developed: 222.28
Area under Smoke Curve (%A-min): 113.36

Flame Spread



Smoke Developed



The following data sheets are actual printouts of the computerized data system which monitors the tunnel furnace. The sheets contain all calibration and specimen data needed to calculate the test results.

ADC DRAFT (IN. H2O) 0.080
GAS PRESS. (IN. H2O) 0.284
GAS VOL (CF) 49.67
BTU/cf 1015
SHUTTER (IN.) 3.00
TEMP. 13' BURIED 110 F

Flame Spread: 120.40
Area under Flame Curve (ft-min): 154.30

TEST#: PH-2570-2 DATE: 3/30/2015

TEST METHOD: ASTM E84-14

CLIENT: Finium

PROJECT#: H-1141

SAMPLE: Oile Maple Collection

MATERIAL: 24 in. x 24 ft.

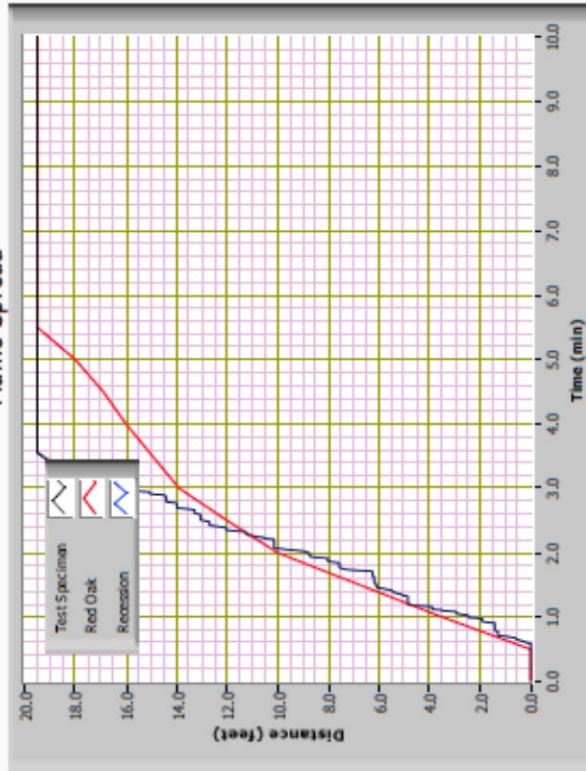
SUPPORT: Steel Rods

REMARKS: Ignition Time: 0:23

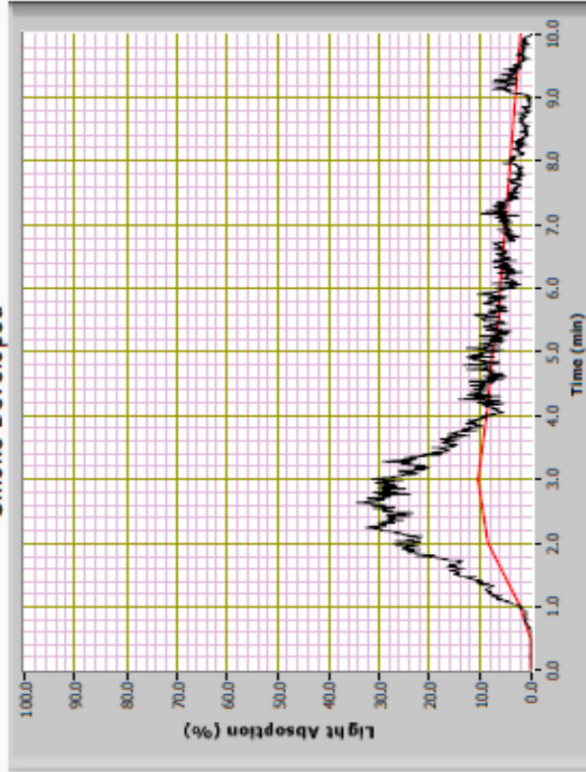
Max Flame Front: 19.50 FT. @ 3:33

Smoke Developed: 173.60
Area under Smoke Curve (%A-min): 88.54

Flame Spread



Smoke Developed



ADC DRAFT (IN. H₂O) 0.080
GAS PRESS. (IN. H₂O) 0.286
GAS VOL (CF) 49.78
BTU/cf 1010
SHUTTER (IN.) 3.00
TEMP. 13' BURIED 110 F

Plame Spread: 95.22
Area under Flame Curve (ft-min): 143.54

TEST#: FH-2570-3 DATE: 3/30/2015

TEST METHOD: ASTM E84-14

CLIENT: Finium

PROJECT#: H-1141

SAMPLE: Oille Oak Collection

MATERIAL: 24 in. x 24 ft.

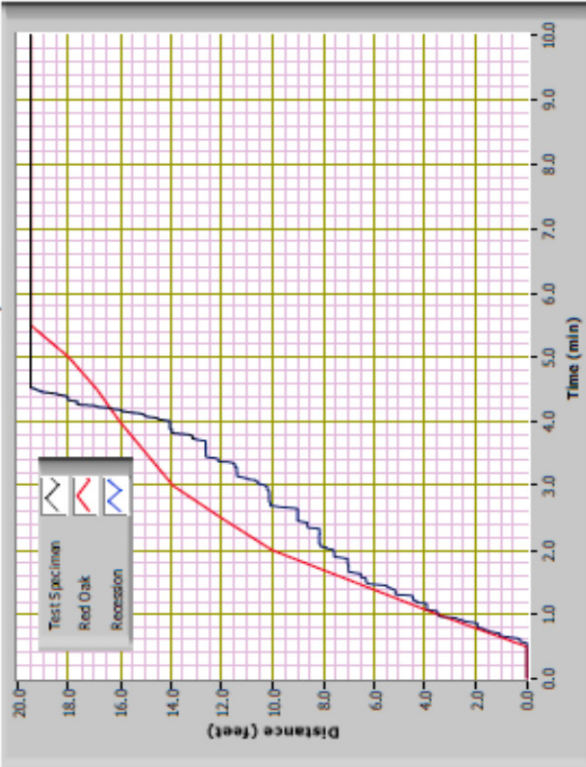
SUPPORT: Steel Rods

REMARKS: Ignition Time: 0:19

Max Flame Front: 19.50 FT. @ 4:31

Smoke Developed: 324.51
Area under Smoke Curve (%A-min): 165.50

Flame Spread



Smoke Developed

