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CAN/ULC-S102 Surface Burning Characteristics of "Lamitech VGP" Decorative Laminate

A Report To:	**Lamitech** Km 13 Via Mamonal Cartagena, Bolivar 130013 Colombia
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Submitted by:	Exova Warringtonfire North America
Report No.	18-002-315 4 Pages
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ACCREDITATION To ISO/IEC 17025 for a defined Scope of Testing by the International Accreditation Service

SPECIFICATIONS OF ORDER

Determine the Flame Spread and Smoke Developed Values based upon a single screening test only, conducted in accordance with CAN/ULC-S102-10, as per Exova Warringtonfire North America Quotation No. 18-002-559,536 dated May 25, 2018.

SAMPLE IDENTIFICATION (Exova sample identification number 18-002-S0315)

Material described as, "Decorative Laminate of 0.7 mm", and identified as:
"Lamitech VGP"

TEST PROCEDURE

The method, designated as CAN/ULC-S102-10, "Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies", is designed to determine the relative surface burning characteristics of materials under specific test conditions. Results of less than three identical specimens are expressed in terms of Flame Spread Value (FSV) and Smoke Developed Value (SDV). Results of three or more replicate tests on identical samples produce average values expressed as Flame Spread Rating (FSR) and Smoke Developed Classification (SDC). FSR and SDC are the values cited by Canadian Building codes.

Although the procedure is applicable to materials, products and assemblies used in building construction for development of comparative surface spread of flame data, the test results may not reflect the relative surface burning characteristics of tested materials under all building fire conditions.

SAMPLE PREPARATION

The test specimen consisted of a total of three sections of material, each approximately 0.7 mm in thickness by 533 mm in width by 2438 mm in length. The sections were butted together to create the total specimen length. Prior to testing, the specimen was conditioned to constant mass at a temperature of 23 ± 3°C and a relative humidity of 50 ± 5%. During testing, the specimen was supported over its full surface area by 50 mm hexagonal wire mesh and was further supported across its width by 6 mm steel rods spaced nominally at 610 mm intervals. The white surface was exposed to the test flame.

The testing was performed on: 2018-06-14

SUMMARY OF TEST PROCEDURE

The tunnel is preheated to 85°C, as measured by the backwall-embedded thermocouple located 7090 mm downstream of the burner ports, and allowed to cool to 40°C, as measured by the backwall-embedded thermocouple located 4000 mm from the burners. At this time the tunnel lid is raised and the test sample is placed along the ledges of the tunnel so as to form a continuous ceiling 7315 mm long, 305 mm above the floor. The lid is then lowered into place.

SUMMARY OF TEST PROCEDURE (continued)

Upon ignition of the gas burners, the flame spread distance is observed and recorded every second. Flame spread distance versus time is plotted. Calculations ignore all flame front recessions and the Flame Spread Value (FSV) is determined by calculating the total area under the curve for the test sample. If the total area under the curve (AT) is less than or equal to 29.7 m·min, FSV = 1.85·AT; if greater, FSV = 1640/(59.4-AT).

The Smoke Developed Value is determined by comparing the area under the obscuration curve for the test sample to that of inorganic reinforced cement board and red oak, established as 0 and 100, respectively. The Smoke Developed Value (SDV) is determined by dividing the total area under the obscuration curve by that of red oak and multiplying by 100.

TEST RESULTS

SAMPLE: "Lamitech VGP"

Test	Approx. Time to Ignition (s)	Maximum Flame Front Distance (m)	Time to Maximum Flame Front (s)	Maximum Air Temperature (°C)	Flame Spread Value (FSV)	Smoke Developed Value (SDV)
1	18	1.86	90	289	**33**	**104**

Observations of Burning Characteristics

The specimen ignited approximately 18 seconds after exposure to the test flame. Audible crackling behavior was observed.

Francis Williams,
Technician.

Ian Smith,
Technical Manager.

Note: This report and service are covered under Exova Canada Inc. Standard Terms and Conditions of Contract which may be found on the Exova website (www.exova.com), or by calling 1-866-263-9268.

Test Charts Sample: "Lamitech VGP"

Chart 1. FLAME SPREAD

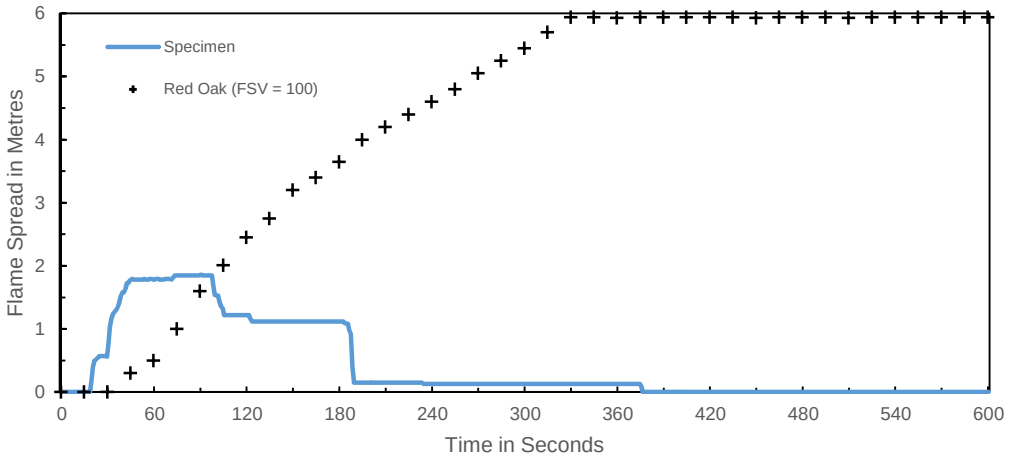


Chart 2. SMOKE DEVELOPED

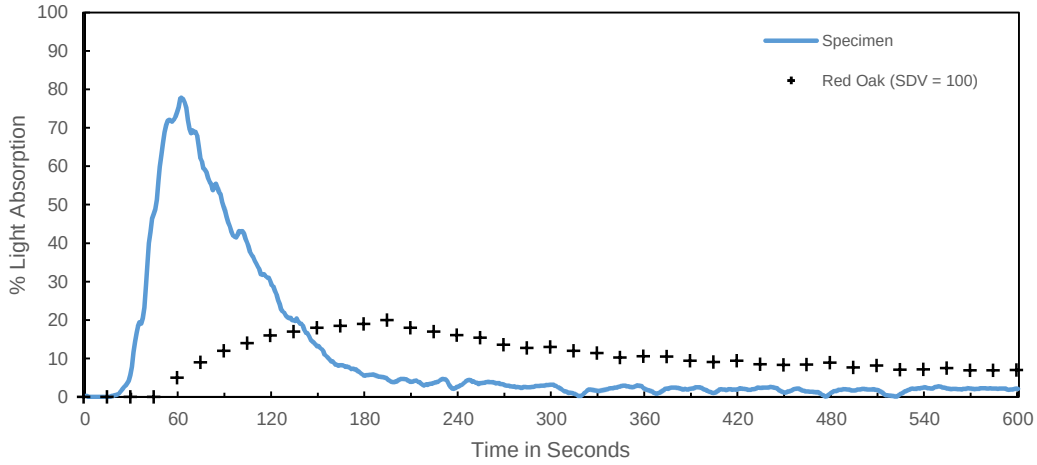
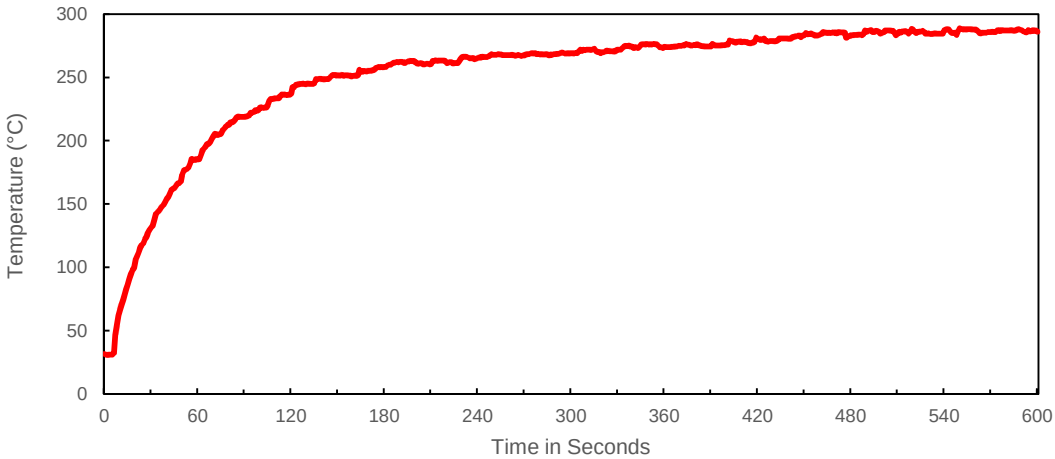


Chart 3. TEMPERATURE



Flame Spread Value (FSV)	Smoke Developed Value (SDV)	Maximum Air Temperature (°C)
33	**104**	289