

CAN/ULC-S102 Surface Burning Characteristics of "PVC Wall Cladding"

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Report No. 04-02-403
4 Pages

Date: June 10, 2004

ACCREDITATION Standards Council of Canada, Registration #1.

REGISTRATION ISO 9002-1994, registered by QMI, Registration #001109.

SPECIFICATIONS OF ORDER

Determine the Flame Spread and Smoke Developed Classifications based upon a single test conducted in conformance with CAN/ULC-S102-03, as per your request dated May 10, 2004.

SAMPLE IDENTIFICATION

Rigid PVC wall cladding identified as: "Printed PVC Panels" approximately 10 mm in thickness.

Note: sample was tested adhered to 15 mm Type X gypsum board, using Compass 1000 adhesive.

(BMTc sample identification number 04-02-S0403)

TEST PROCEDURE

The method, designated as CAN/ULC-S102-03, "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 are expressed in terms of flame spread classification (FSC) and smoke developed (SD).

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 sample was conditioned to constant mass at a temperature of 23°C and a relative humidity of 50% prior to testing.

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 15 seconds. Flame spread distance versus time is plotted ignoring any flame front recessions. If the area under the curve (A) is less than or equal to 29.7 m²-min, FSC1 = 1.85·A; if greater, FSC1 = 1640/(59.4-A). Smoke developed is determined by comparing the area under the obscuration curve for the test sample to that of inorganic reinforced cement board and red oak, arbitrarily established as 0 and 100, respectively.

TEST RESULTS

<u>SAMPLE</u>	<u>FSC1</u>	<u>SD</u>
"Printed PVC Panels"	30	210

Observations of Burning Characteristics

- The sample began to ignite and propagate flame after approximately 15 seconds exposure to the test flame. At approximately 2 minutes, sample located in the area of direct test flame impingement began to melt and fall away from the gypsum board substrate onto the floor of the test chamber.
- The flame front propagated to a to a maximum distance of 1.9 metres at 2.5 minutes and then receded to the baseline. At 8.5 minutes, material located on the floor in front of the test burner began to ignite, causing a second brief flame advance (see accompanying graphs).
- Maximum amounts of smoke developed were recorded coinciding with the flame advance and the burning activity of the material during the initial minutes of the test (see accompanying graphs).

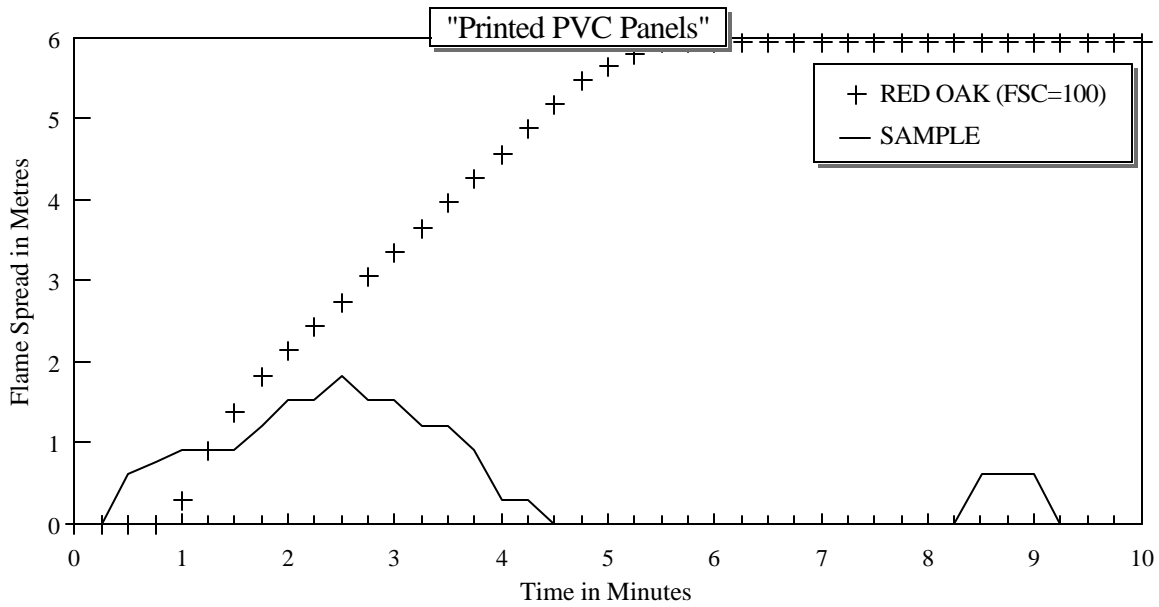
Note: This is an electronic copy of the report. Signatures are on file with the original report.

Robert A. Carleton
Fire Testing Services.

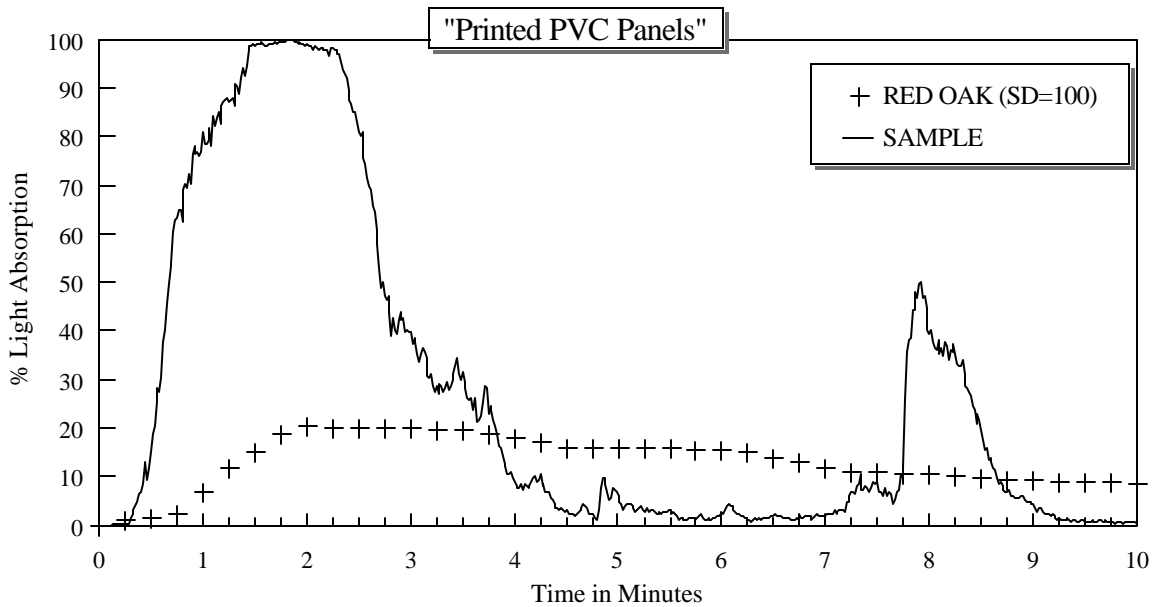
Richard J. Lederle
Fire, Flammability & Explosivity

Note: This report consists of 4 pages, including the cover page, that comprise the report "body". It should be considered incomplete if all pages are not present.

FLAME SPREAD CLASSIFICATION



SMOKE DEVELOPED



FSC1
30

SD
210