

**CAN/ULC-S102.2 Surface Burning Characteristics  
of "PL401" Stretch Ceiling Fabric**

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Attention: Pascal Gicquel  
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Submitted by: Fire Testing Services

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3 Pages

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**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 accordance with CAN/ULC-S102.2, as per your letter of March 26, 2001 and our quotation accepted February 13, 2001

## **SAMPLE IDENTIFICATION**

Stretch ceiling fabric identified as: PL401 - Spangled Finish.

(Bodycote Ortech sample identification number 01-02-S0206-5)

## **TEST PROCEDURE**

The method, designated as CAN/ULC-S102.2-M88, "Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Covering and Miscellaneous Materials", 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 floor of the tunnel so as to form a continuous surface and then the lid is lowered.

**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 m·min,  $FSC1 = 1.85 \cdot A$ ; 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>
PL401 - Spangled Finish.	0	32

**Observations of Burning Characteristics**

- The sample began to melt, shrink and char immediately upon exposure to the flame.
- Brief ignitions of the material located in the area of direct test flame impingement occurred during the test, however the flame front did not propagate beyond the zero point.
- Slight increases in smoke developed were recorded coinciding with the ignitions of the sample (see accompanying charts).



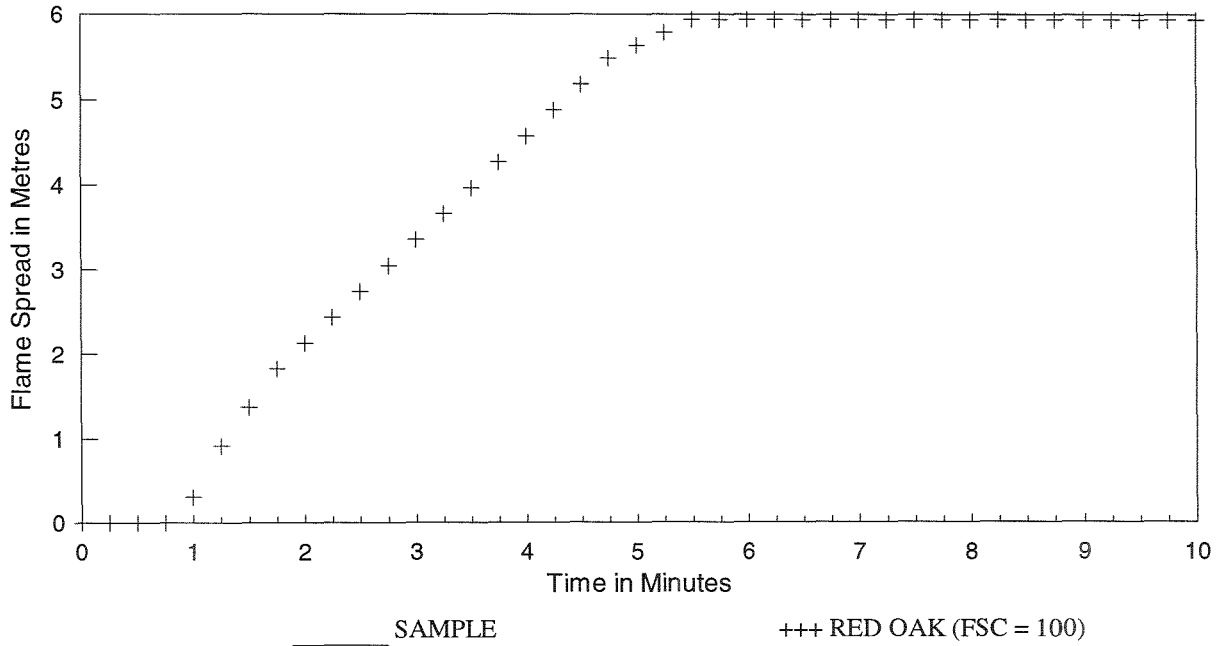
Lee Major  
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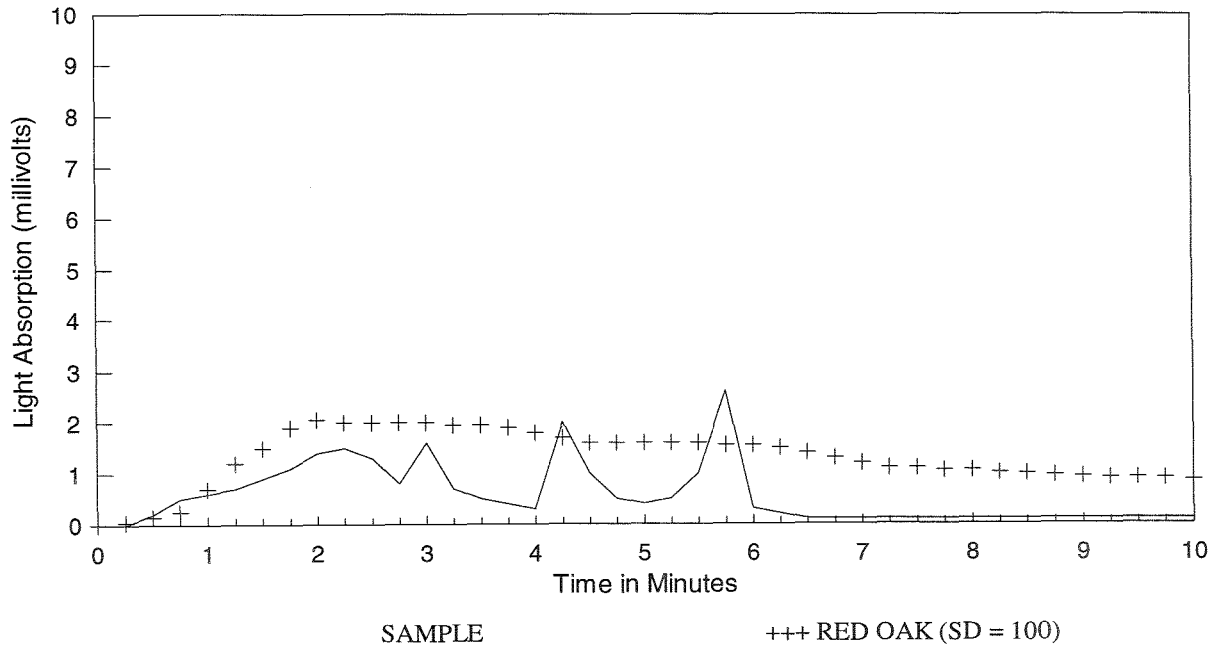
**FLAME SPREAD CLASSIFICATION**

PL401 - Spangled Finish.



**SMOKE DEVELOPED**

PL401 - Spangled Finish.



**FSC1**

0

**SD**

32