

**CAN/ULC-S102 Surface Burning Characteristics
of "Gypsum Ceiling Tile"**

A Report To: **Fachin Trading Company Ltd.**
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Submitted by: Fire Testing Services

Report No. 03-02-220
3 Pages

Date: April 10, 2003

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-M88, as per our Quotation #Q03-02-129 dated April 8, 2003.

SAMPLE IDENTIFICATION

Fibreglass reinforced decorative gypsum ceiling tile, approximately 10 mm in thickness, identified as: "Millennium Board".

(BMTc sample identification number 03-02-S0220)

TEST PROCEDURE

The method, designated as CAN/ULC-S102-M88, "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, which consisted of 12 tiles each measuring 533 mm wide by 610 mm in length, 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 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>
"Millennium Board" fibreglass reinforced gypsum tile	0	15

Observations of Burning Characteristics

- The sample did not ignite and propagate flame at any time during the ten minute test period.
- Only a slight increase in smoke developed was recorded during the test period (see accompanying charts).

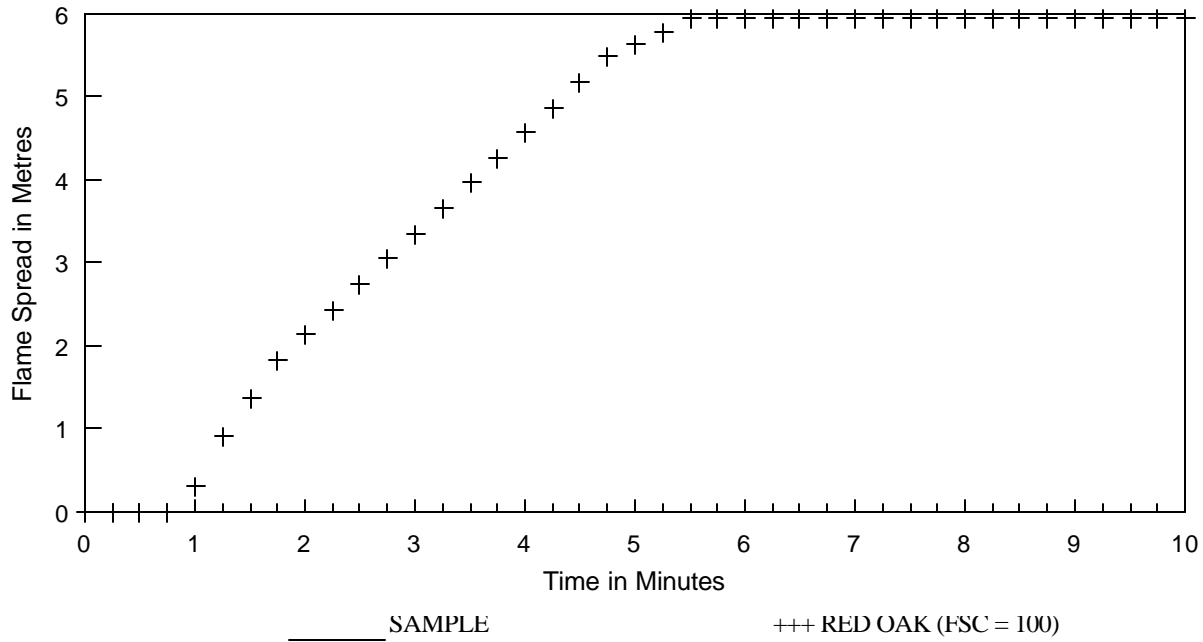
Note: This is an electronic copy of the report. Signatures are on file with the original report.

Robert A. Carleton
Fire Testing Services.

Richard J. Lederle
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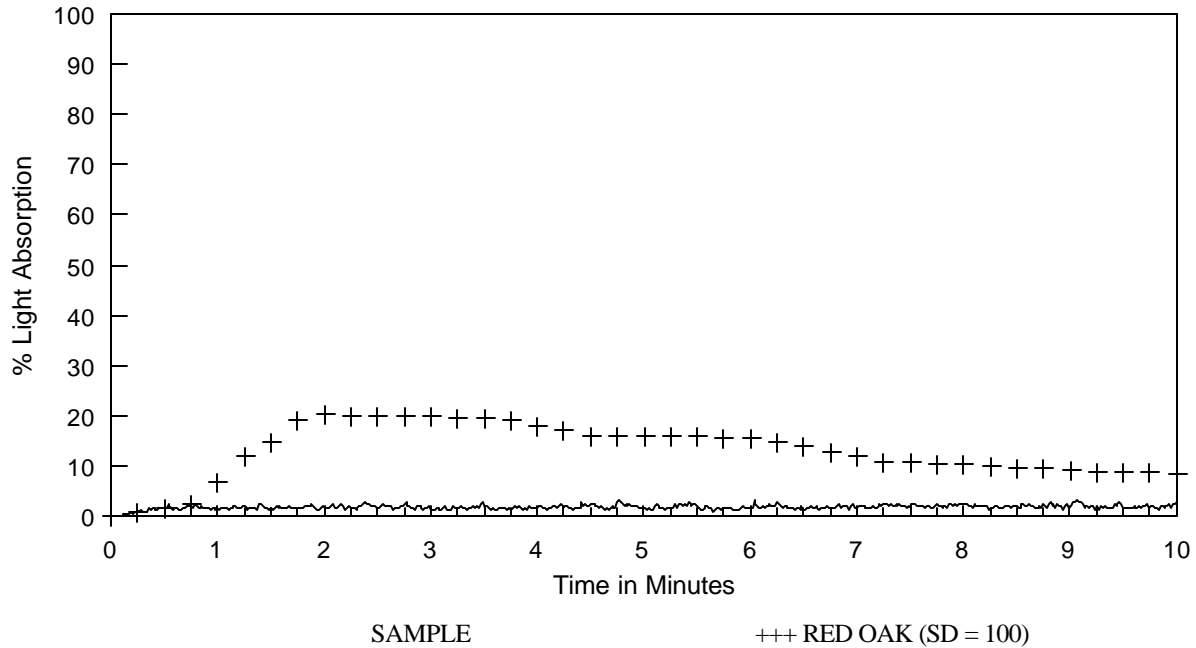
FLAME SPREAD CLASSIFICATION

"Millennium Board"



SMOKE DEVELOPED

"Millennium Board"



FSC1

0

SD

15