

**ACCREDITATION** Standards Council of Canada, Registration #1.

**REGISTRATION** ISO 9001:2000, registered by QMI, Registration #001109.

## **SPECIFICATIONS OF ORDER**

Determine the Flame Spread and Smoke Developed Indices based upon a single test conducted in accordance with ASTM E 84-05, as per your Purchase Order Number 008627, dated June 8, 2005.

*This report was originally issued on August 31, 2005 and is re-issued herein to reflect Test Method used on the sample submitted.*

## **SAMPLE IDENTIFICATION**

Sample submitted for testing was identified as: "Primacoustics FB 2448".

(BMTC sample identification number 05-02-S0483)

## **TEST PROCEDURE**

The method, designated as ASTM E 84-05, "Standard Method of Test for Surface Burning Characteristics of Building Materials", is designed to determine the relative surface burning characteristics of materials under specific test conditions. Results are expressed in terms of flame spread index (FSI) 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 73°F and a relative humidity of 50% prior to testing.

## **SUMMARY OF TEST PROCEDURE**

The tunnel is preheated to 150°F, as measured by the floor-embedded thermocouple located 23.25 feet downstream of the burner ports, and allowed to cool to 105°F, as measured by the floor-embedded thermocouple located 13 feet 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 24 feet long, 12 inches 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 97.5 min·ft, FSI = 0.515·A; if greater, FSI = 4900/(195-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>FSI</u>	<u>SD</u>
"Primacoustics FB 2448"	15	155


**Observations of Burning Characteristics**

- The sample began to ignite and propagate flame immediately upon exposure to the test flame. Melting dripping of the sample was observed.
- The flame front propagated to a maximum distance of 3.0 feet at 30 seconds and receded to the baseline.
- Maximum amounts of smoke developed were recorded during the later stages of the test coinciding with the smouldering material on the floor (see accompanying graphs).

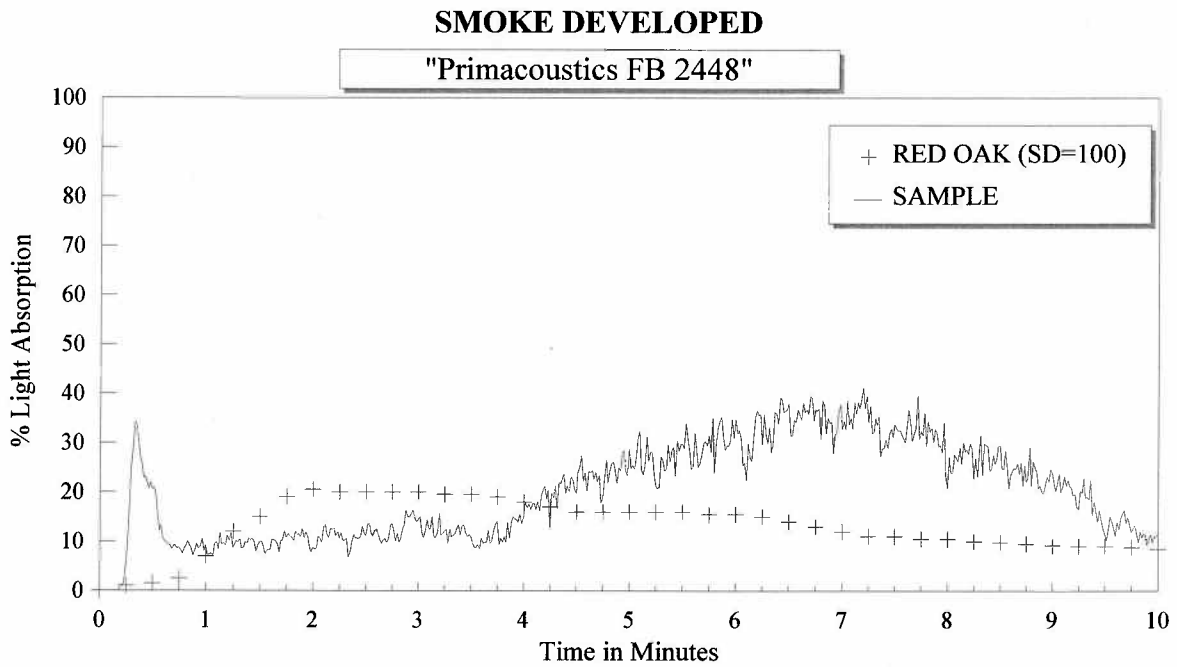
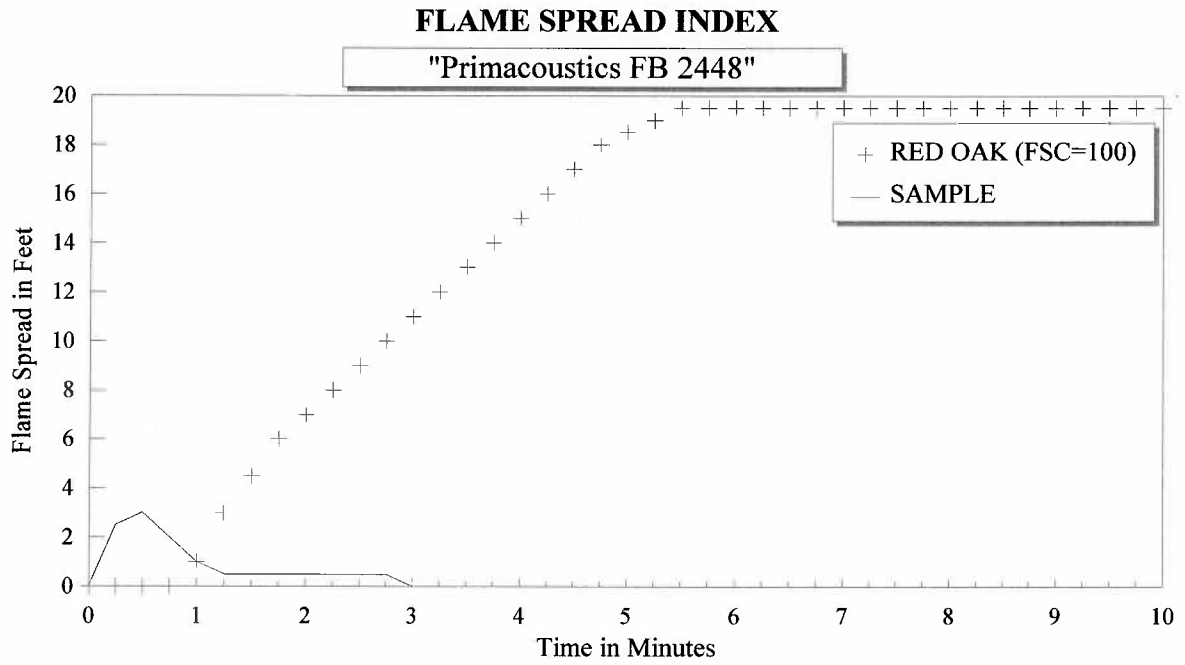
**Authorities having jurisdiction usually refer to these categories:**

	<u>Flame-Spread Index</u>	<u>Smoke Development</u>
Class 1 or A	0 - 25	450 Maximum
Class 2 or B	26 - 75	450 Maximum
Class 3 or C	76 - 200	450 Maximum

  
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*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.*



**FSI**  
15

**SD**  
155