



CLIENT: Sabic Innovative Plastic US LLC
1 Lexan Lane
Mount Vernon, IN 47620

Test Report No: 177:012509-02	Date: May 8, 2008
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The following sample was submitted by the Client as: 16 MM – LTC3T16, LTD3T16, LTT3T16, LTR3T16, LTC3G16, LTC2G16

DATE OF RECEIPT: MAY 8, 2008

TESTING PERIOD: MAY 8, 2008

AUTHORIZATION: Client's Purchase Order Number Y14073023

TEST REQUESTED: The submitted sample was tested for Surface Burning Characteristics in accordance with the procedures outlined in ASTM E84-07.

TEST RESULTS:	<u>Flame Spread Index</u>	<u>Smoke Developed Value</u>
	5	30

PLEASE SEE PAGE 3 FOR DETAILED DATA

PREPARED BY:

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Fire Technology**

**SIGNED FOR AND ON BEHALF OF
SGS U.S. TESTING COMPANY INC.**

**Dominick Lepore, Manager
Building Materials and Products**

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CLIENT: Sabic Innovative Plastics

RESULTS:

INTRODUCTION:

This report presents test results of Flame Spread and Smoke Developed Values per ASTM E-84-07. The report also includes Material Identification, Method of Preparation, Mounting and Conditioning of the specimens.

The tests were performed in accordance with the specifications set forth in ASTM E-84-07, Standard Test Method for Surface Burning Characteristics of Building Materials, both as to equipment and test procedure. This test procedure is similar to UL-723, ANSI No. 2.5, NFPA No. 255 and UBC 42-1.

The test results cover two parameters: Flame Spread and Smoke Developed Values during a 10-minute fire exposure. Inorganic cement board and red oak flooring are used as comparative standards and their responses are assigned arbitrary values of 0 and 100, respectively.

PREPARATION AND CONDITIONING:

Three pieces of sample supplied by the client was placed into the fire chamber end to end to form a 21 inch wide X 24 foot long specimen for testing. The samples were placed over screen and rods for support. Inorganic cement boards were placed over the sample prior to testing as a means of protecting the interior of the tunnel lid.

The sample was conditioned at $73^{\circ} \pm 5^{\circ}$ Fahrenheit and $50 \pm 5\%$ relative humidity.

TEST PROCEDURE:

The tunnel was thoroughly pre-heated by burning natural gas. When the brick temperature, sensed by a floor thermocouple, had reached the prescribed 105° Fahrenheit $\pm 5^{\circ}$ Fahrenheit level, the sample was inserted in the tunnel and test conducted in accordance with the standard ASTM E-84-07 procedures.

The operation of the tunnel was checked by performing a 10-minute test with inorganic board on the day of the test.



CLIENT: Sabic Innovative Plastics

RESULTS:

TEST RESULTS:

The test results, calculated in accordance with ASTM E-84-07 for Flame Spread and Smoke Developed Values are as follows:

Test Specimen : 16 MM – L TC3T16, LTD3T16, LTT3T16
LTR3T16, LTC3G16, LTC2G16
Flame Spread Index* : 5
Smoke Developed Value* : 30

*Rounded off to the nearest 5 units. Graphs of the Flame Spread, Smoke Developed and Time-Temperature are shown on the attached charts at the end of this report.

OBSERVATIONS:

Ignition was noted at 50 seconds followed by:

- Charring
- Melting
- Dripping
- Flaming Dripping
- Floor Burning

RATING:

The National Fire Protection Association Life Safety Code 101, Section 6-5.3, "Interior Wall and Ceiling Finish Classification", has a means of classifying materials with respect to Flame Spread and Smoke Developed when tested in accordance with NFPA 255, "Method of Test of Surface Burning Characteristics of Building Materials", (ASTM E-84).

The classifications are as follows:

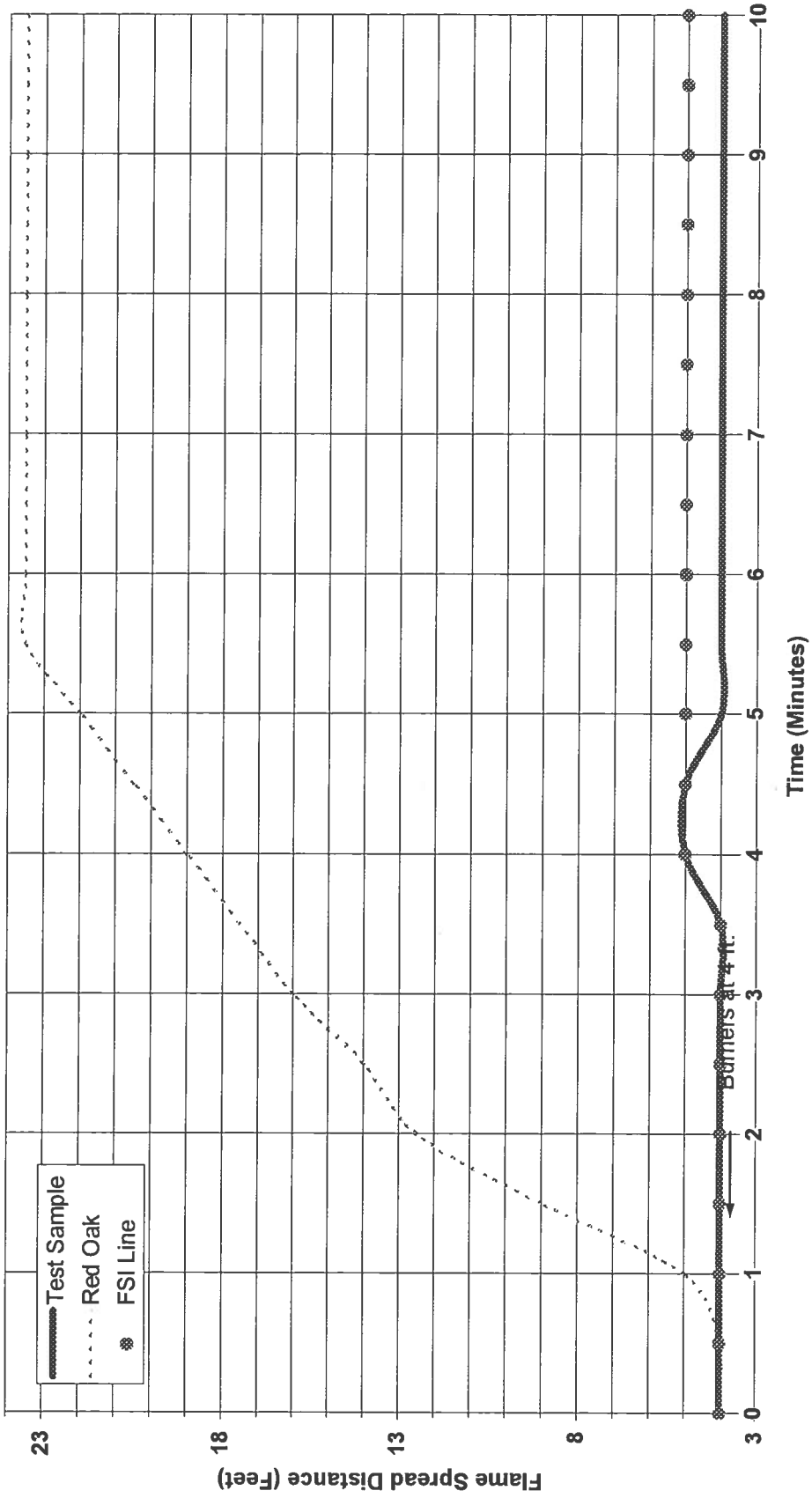
Class A Interior Wall & Ceiling Finish:	Flame Spread -	0-25
	Smoke Developed -	0-450
Class B Interior Wall & Ceiling Finish:	Flame Spread -	26-75
	Smoke Developed -	0-450
Class C Interior Wall & Ceiling Finish:	Flame Spread -	76-200
	Smoke Developed -	0-450

Since the sample received a Flame Spread of 5 and a Smoke Developed Value of 30, it would meet the parameters for a Class A Interior Wall & Ceiling Finish Category.

End of Report

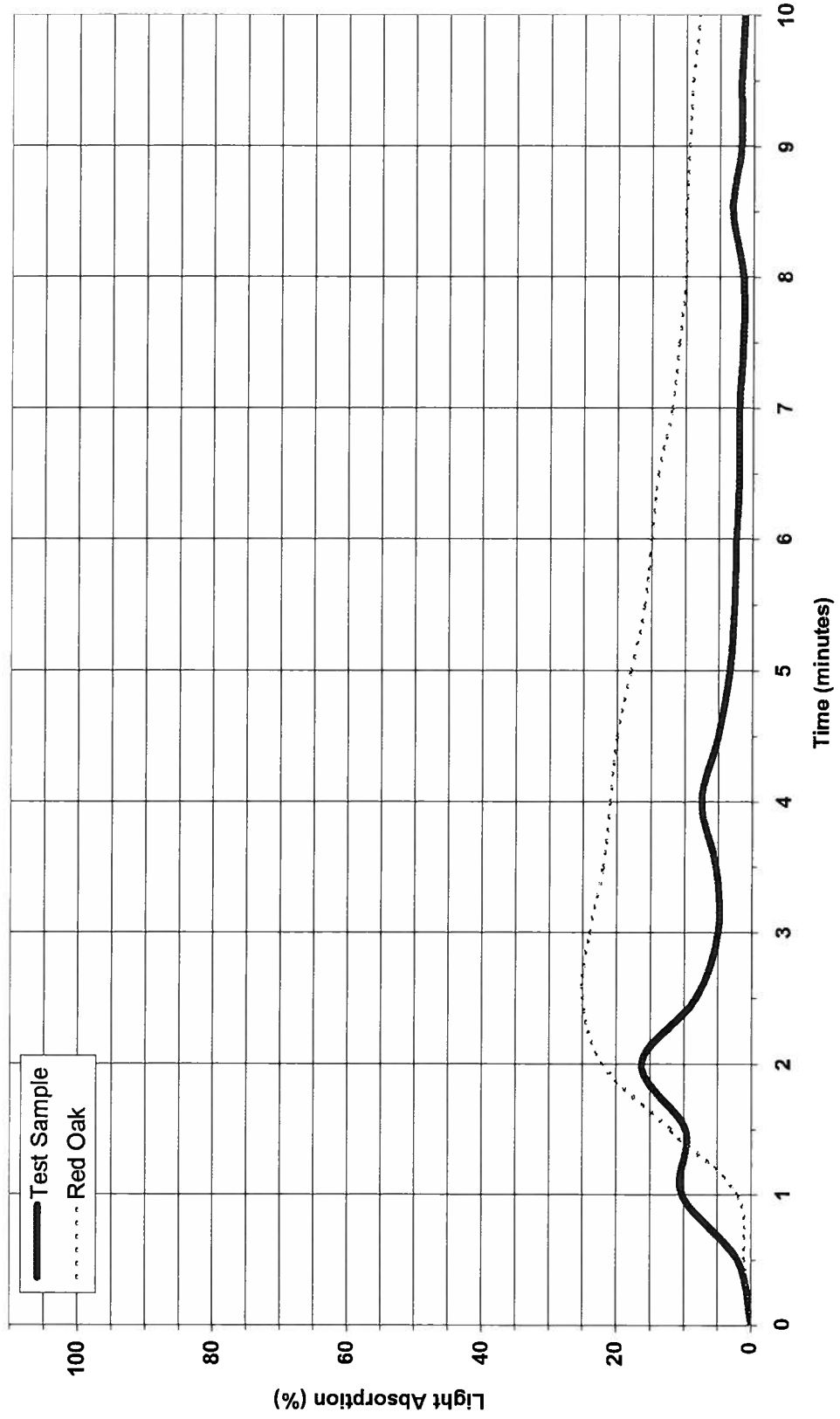
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Flame Spread Chart



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Smoke Developed Chart





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Temperature - Time Curve

