



CLIENT:

Corporation

Test Report No: 628457-02

Date: June 16, 2006

The following sample was submitted by the Client as: **PVC Ceiling Gypsum Board**  
Manufactured by Power Play Company, LTD.

DATE OF RECEIPT: May 26, 2006

TESTING PERIOD: June 14, 2006

AUTHORIZATION: Order Confirmation Number 628457, dated May 30, 2006

TEST REQUESTED: The submitted sample was tested for Surface Burning Characteristics in accordance with the procedures outlined in ASTM E84-05.

TEST RESULTS: Continued on the following pages

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SIGNED FOR AND ON BEHALF OF  
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**CLIENT:**

**RESULTS:**

**INTRODUCTION:**

This report presents test results of Flame Spread and Smoke Developed Values per ASTM E-84-05. 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-84-05, 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:**

Twelve (12) 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  $105^{\circ}$  Fahrenheit  $\pm 5^{\circ}$  Fahrenheit level, the sample was inserted in the tunnel and test conducted in accordance with the standard ASTM E-84-05 procedures.

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

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RESULTS:

**TEST RESULTS:**

The test results, calculated in accordance with ASTM E-84-05 for Flame Spread and Smoke Developed Values are as follows:

Test Specimen	: PVC Ceiling Gypsum Board
Flame Spread Index*	: 5
Smoke Developed Value*	: 5

\*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 occurred at 50-seconds. The following observations were noted:

- Charring

**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 5, it would meet the parameters for a Class A Interior Wall & Ceiling Finish Category.

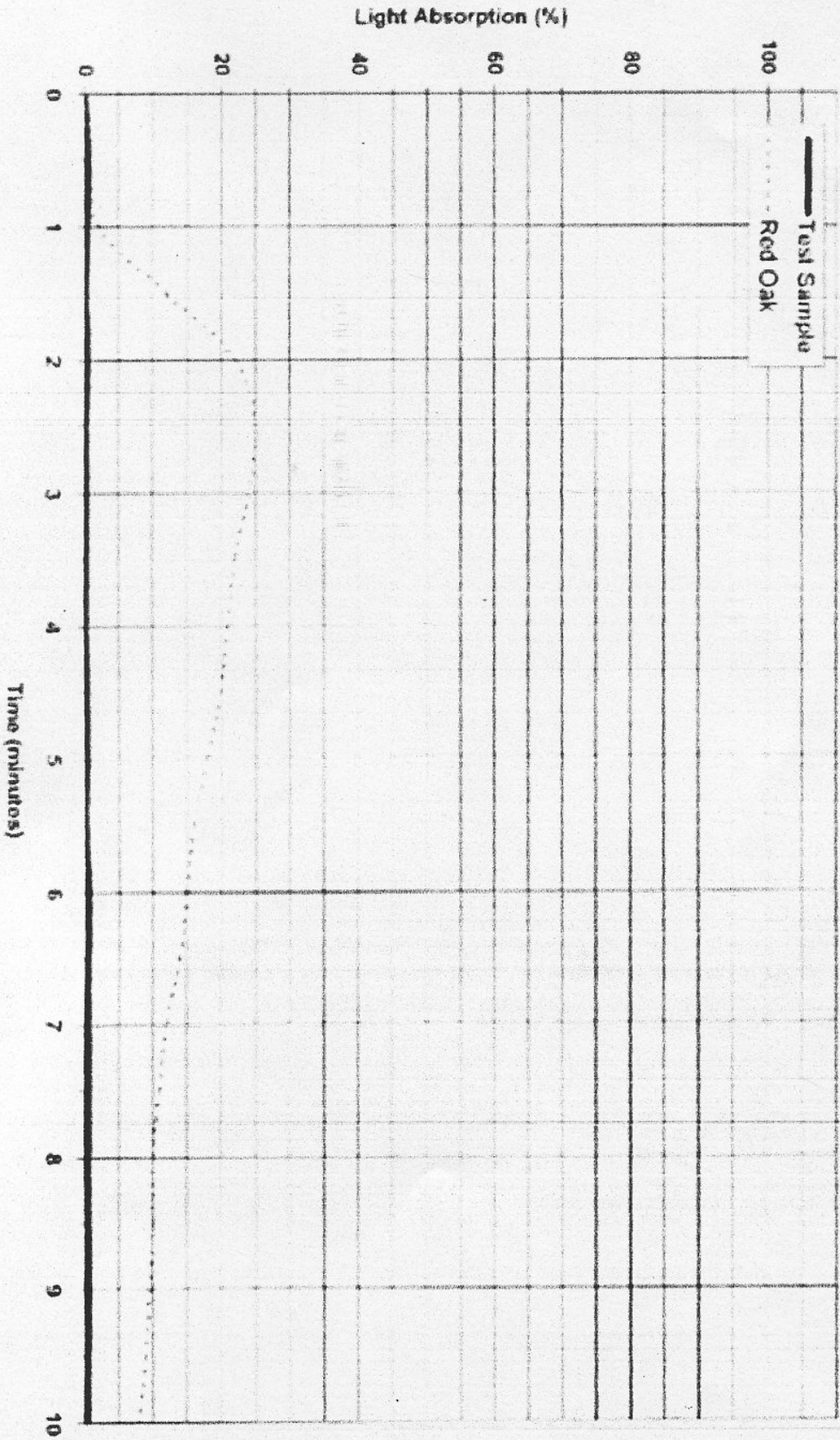
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# Smoke Developed Chart

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Sample ID: PVC Ceiling Gypsum Board

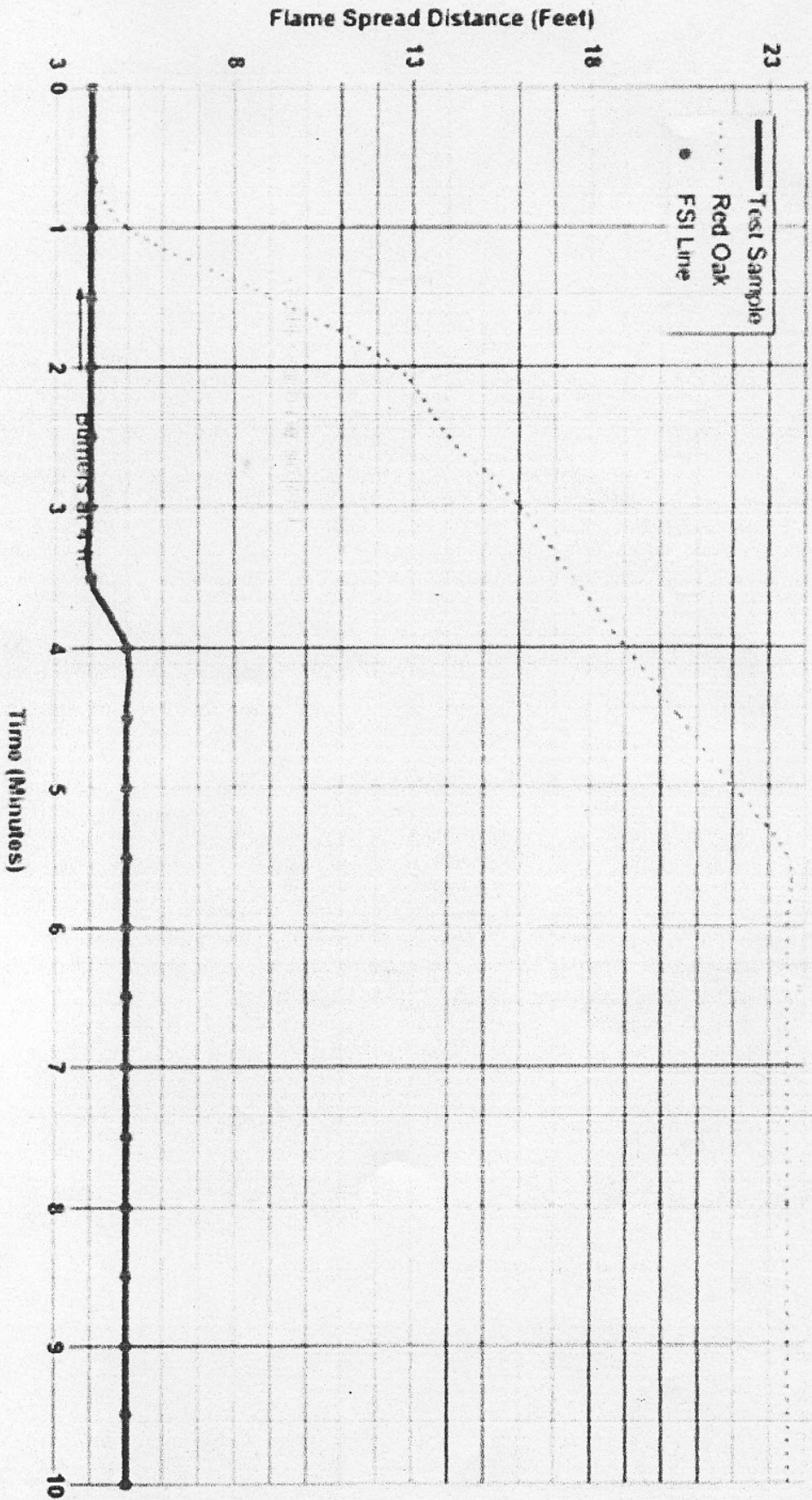


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# Flame Spread Chart



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### Temperature - Time Curve

