



CLIENT: Palram Americas, Inc.
9375 Commerce Circle
Arcadia West Industrial Park
Kutztown, PA 19530

Test Report No: 369159-4

Date: August 22, 2005

The following sample was submitted by the Client as: SunTuf / SunSky / Dynaglas (Corrugated Polycarbonate – 0.8mm)

DATE OF RECEIPT: JULY 28, 2005

TESTING PERIOD: August 18, 2005

AUTHORIZATION: Letter from Client, dated July 25, 2005 and signed by Don Olson

TEST REQUESTED: The submitted sample was tested for Surface Burning Characteristics in accordance with the procedures outlined in ASTM E-84-04.

TEST RESULTS: Continued on the following pages

PREPARED BY:

Arthur D. Fiorino, Technician
Fire Technology
af

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

for

John Lomash, Manager
Hardlines Operations

Page 1 of 3

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Report No.: 369159-4
Date: August 22, 2005
Page: 2 of 3

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RESULTS:

INTRODUCTION:

This report presents test results of Flame Spread and Smoke Developed Values per ASTM E-84-04. 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-84-04, 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 samples measuring 21 inches wide X 8 feet long, supported on screen and rods was placed into the fire chamber for testing.

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-84-43 procedures.

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



Report No.: 369159-4
Date: August 22, 2005
Page: 3 of 3

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RESULTS:

TEST RESULTS:

The test results, calculated in accordance with ASTM E-84-04 for Flame Spread and Smoke Developed Values are as follows:

Test Specimen : SunTuf / SunSky / Dynaglas (Corrugated Polycarbonate – 0.8mm)
Flame Spread Index* : 10
Smoke Developed Value* : 130

*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 18 seconds followed by charring, melting, dripping, flaming dripping, sagging, burning on sidewall of tunnel and 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).

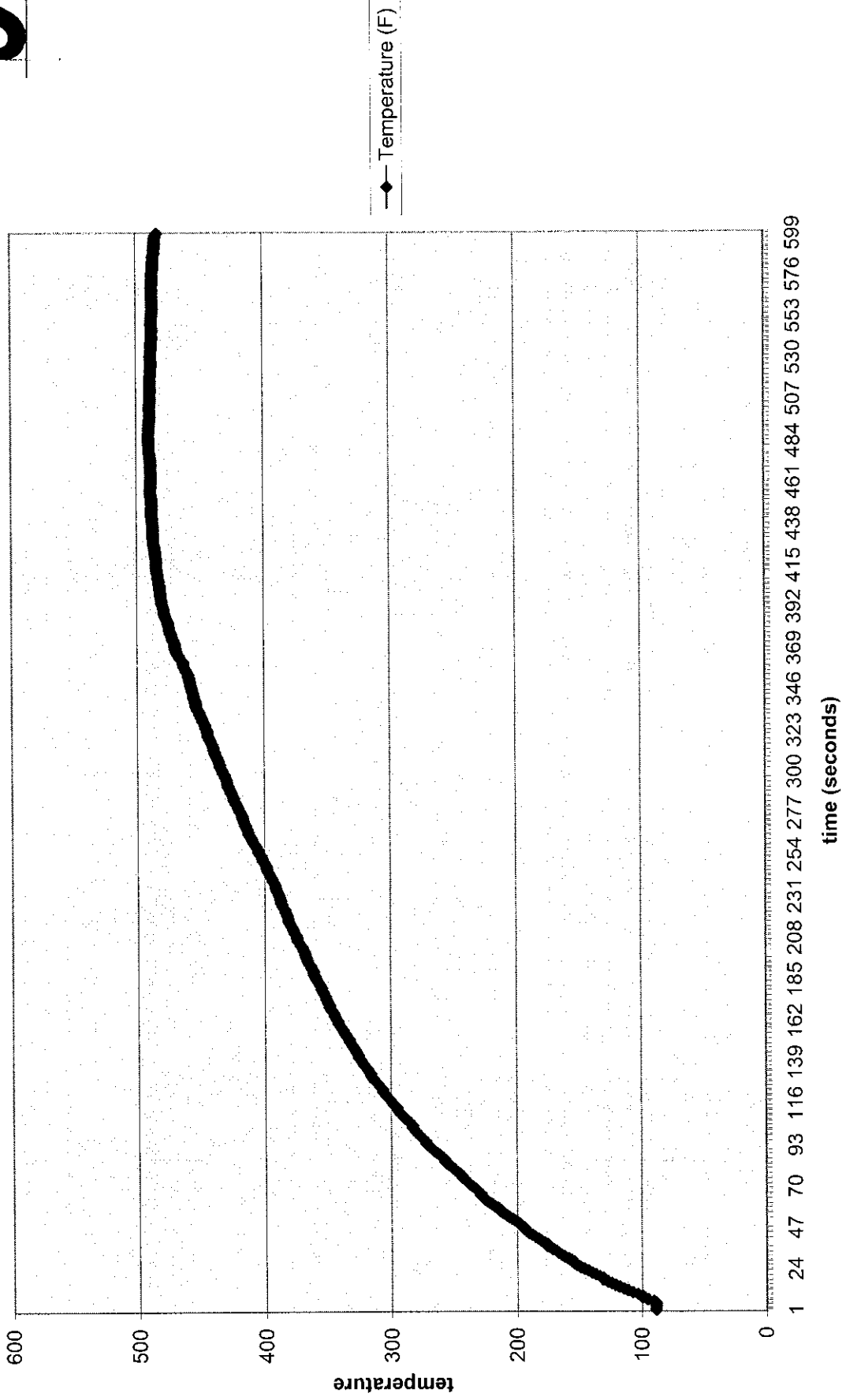
The classifications are as follows:

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

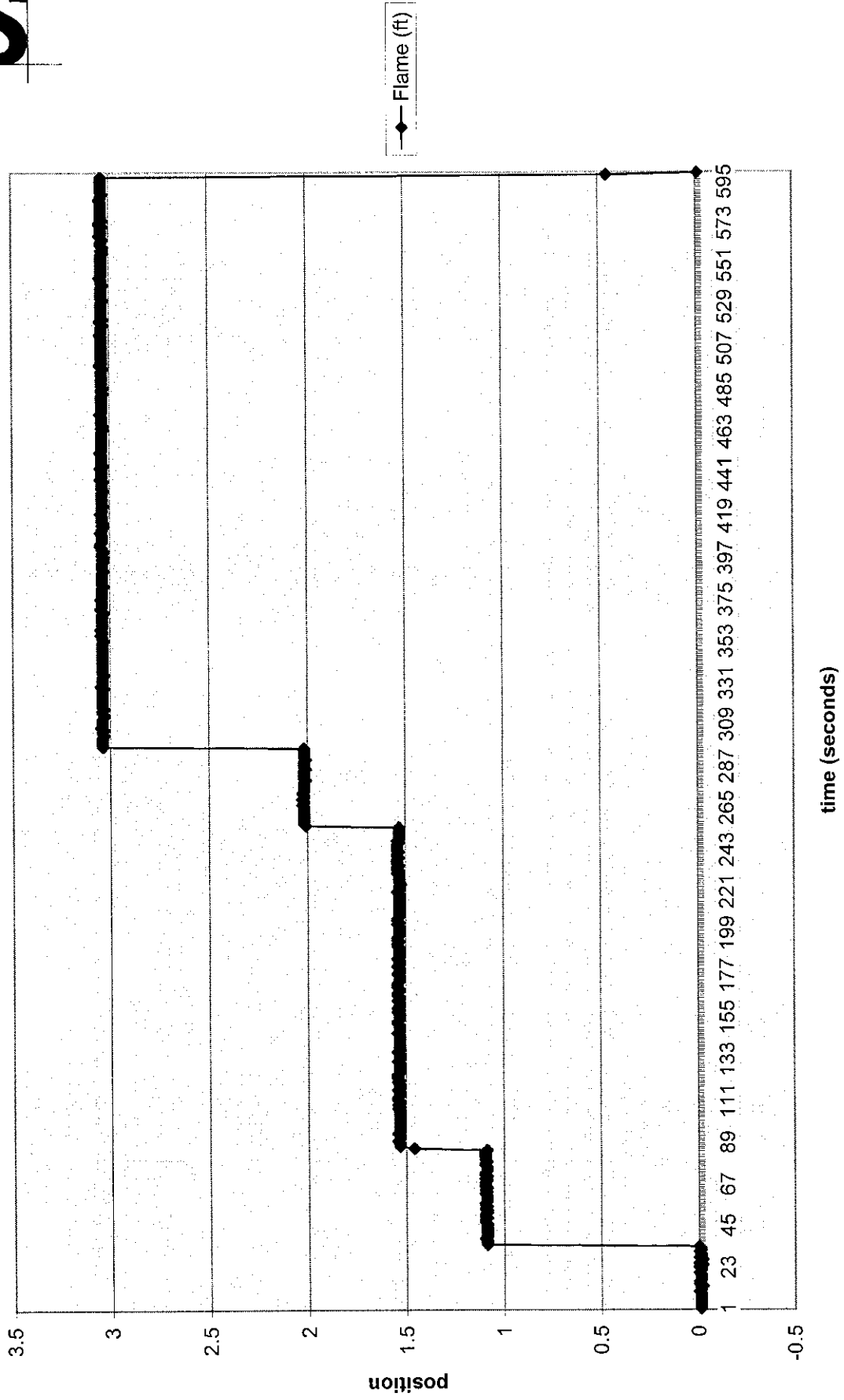
Since the sample received a Flame Spread of 10 and a Smoke Developed Value of 130, it would fall into the Class A Interior Wall & Ceiling Finish Category

End of Report

G:\Fire Tech\Tunnel\July thru Sept 2005\Palram 369159-4.xls Temperature (degrees F)



G:\Fire Tech\Tunnel\July thru Sept 2005\Palram 369159-4.xls Flame Position (ft)



G:\Fire Tech\Tunnel\July thru Sept 2005\Palram 369159-4.xls Smoke %

