

# TEST REPORT

**Intertek**

**REPORT NUMBER: 101008108COQ-003**  
ORIGINAL ISSUE DATE: February 12, 2013  
REVISION DATE: April 30, 2014

**EVALUATION CENTER**  
Intertek Testing Services NA Ltd.  
1500 Brigantine Drive  
Coquitlam, B.C. V3K 7C1

## RENDERED TO

**Clipso Americas Inc.**  
**200 Corporate Drive, Suite 4**  
**Blauvelt, NY 10913**

PRODUCT EVALUATED: 495D Fabric  
EVALUATION PROPERTY: Surface Burning Characteristics

**Report of testing 495D fabric for compliance with the applicable requirements of the following criteria: ASTM E84-12c, *Standard Test Method for Surface Burning Characteristics of Materials.***

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## 2 Introduction

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Intertek Testing Services NA Ltd. (Intertek) has conducted testing for Clipso Americas Inc., to evaluate the surface burning characteristics of 495D fabric. Testing was conducted in accordance with the standard methods of ASTM E84-12c, *Standard Test Method for Surface Burning Characteristics of Materials*.

This evaluation began February 5, 2013 and was completed the same day.

## 3 Test Samples

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### 3.1. SAMPLE SELECTION

Samples were submitted to Intertek directly from the client and were not independently selected for testing. The sample materials were received at the Evaluation Center on January 2, 2013.

### 3.2. SAMPLE AND ASSEMBLY DESCRIPTION

Upon receipt of the samples at the Intertek Coquitlam laboratory, they were placed in a conditioning room where they remained in an atmosphere of  $23 \pm 3^{\circ}\text{C}$  ( $73.4 \pm 5^{\circ}\text{F}$ ) and  $50 \pm 5\%$  relative humidity.

The sample material consisted of a roll of fabric, identified by the client as 495D fabric. The fabric was white in color.

For this trial run, a 24 ft length of fabric was placed on the upper ledge of the flame spread tunnel. The sample material was supported by  $\frac{1}{4}$  in. steel rods spaced every 24 in. and 20 ga. 2 in x 2 in galvanized steel netting spanning the upper ledge of the flame spread tunnel. A layer of 6 mm reinforced cement board was placed over top of the samples, the tunnel lid was lowered into place, and the samples were then tested in accordance with ASTM E84-12c.

## 4 Testing and Evaluation Methods

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### 4.1. TEST STANDARD

The results of the tests are expressed by indexes, which compare the characteristics of the sample under tests relative to that of select grade red oak flooring and inorganic-cement board.

#### (A) Flame Spread Classification:

This index relates to the rate of progression of a flame along a sample in the 25 foot tunnel. A natural gas flame is applied to the front of the sample at the start of the test and drawn along the sample by a draft kept constant for the duration of the test. An observer notes the progression of the flame front relative to time. This information is plotted on a graph (flame spread curve).

The test apparatus is calibrated such that the flame front for red oak flooring passes out the end of the tunnel in five minutes, thirty seconds (plus or minus 15 seconds).

#### (B) Smoke Developed:

A photocell is used to measure the amount of light, which is obscured by the smoke passing down the tunnel duct. When the smoke from a burning sample obscures the light beam, the output from the photocell decreases. This decrease with time is recorded and compared to the results obtained for red oak, which is defined to be 100.

## 5 Testing and Evaluation Results

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### 5.1. RESULTS AND OBSERVATIONS

#### (A) Flame Spread

The resultant flame spread classifications are as follows:  
(Classification rounded to nearest 5)

Sample Material	Flame Spread	Flame Spread Classification
495D Fabric	4	5

#### (B) Smoke Developed

The areas beneath the smoke developed curve and the related classifications are as follows:  
(For smoke developed indexes 200 or more, classification is rounded to the nearest 50. For smoke developed indexes less than 200, classification is rounded to nearest 5)

Sample Material	Smoke Developed	Smoke Developed Classification
495D Fabric	235	250

#### (C) Observations

During the test, the sample surface ignited at approximately 8 seconds; the flame began to progress along the sample until it reached the maximum flame spread.

## 6 Conclusion


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The samples of 495D fabric, submitted by Clipso Americas Inc, exhibited the following flame spread characteristics when tested in accordance with ASTM E84-12c, *Standard Test Method for Surface Burning Characteristics of Materials*.

Sample Material	Flame Spread Classification	Smoke Developed Classification
495D Fabric	5	250

The conclusions of this test report may not be used as part of the requirements for Intertek product certification. Authority to Mark must be issued for a product to become certified.

### INTERTEK TESTING SERVICES NA LTD.

Tested and  
Reported by:   
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# APPENDIX A

## DATA SHEETS

## ASTM E84-12c DATA SHEETS

### ASTM E84

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Client: Clipso-USA  
Date: 02 05 2013  
Project Number: 101008108  
Test Number: 1  
Operator: Greg PHilp  
Specimen ID: 495D Fabric

### TEST RESULTS

**FLAMESPREAD INDEX: 5**

**SMOKE DEVELOPED INDEX: 250**

### SPECIMEN DATA . . .

Time to Ignition (sec): 8  
Time to Max FS (sec): 21  
Maximum FS (feet): 0.8  
Time to 980 F (sec): Never Reached  
Time to End of Tunnel (sec): Never Reached  
Max Temperature (F): 411  
Time to Max Temperature (sec): 599  
Total Fuel Burned (cubic feet): 0.00

FS\*Time Area (ft\*min): 8.2  
Smoke Area (%A\*min): 225.3  
Unrounded FSI: 4.2  
Unrounded SDI: 234.9

### CALIBRATION DATA . . .

Time to Ignition of Last Red Oak (Sec): 44.0  
Red Oak Smoke Area (%A\*min): 95.9

TESTED BY  
*Cg*

REVIEWED BY  
*ju*

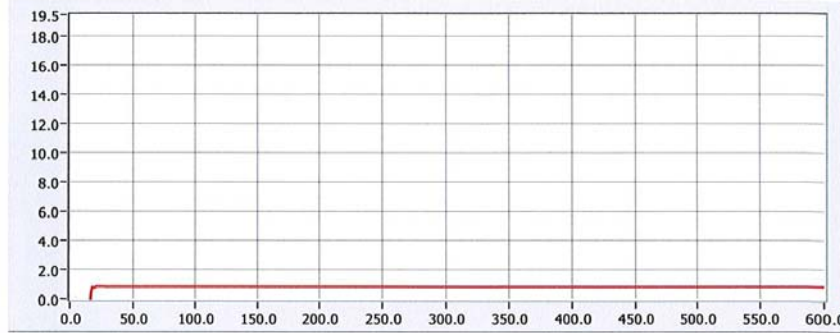


### ASTM E84-12c DATA SHEETS

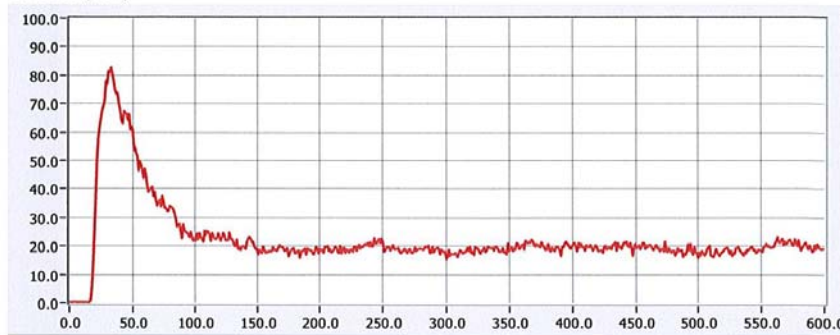
Project No: 101008108

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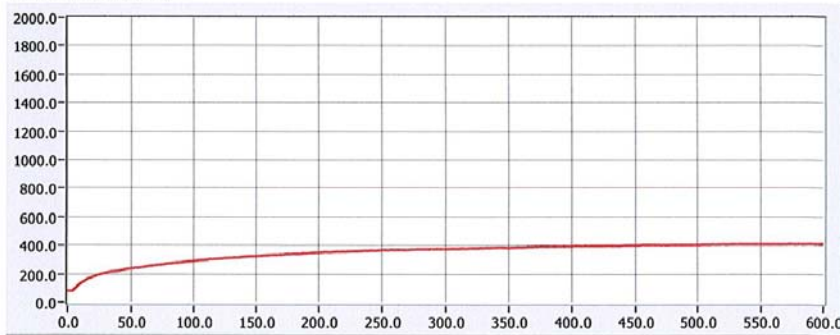
FLAME SPREAD (ft)



Smoke (%A)



Temperature (°F)



Time (sec)

600

*ls*

*SV*

## REVISION SUMMARY

<b>DATE</b>	<b>PAGE</b>	<b>SUMMARY</b>
February 12, 2013	All	Original Issue Date
April 30, 2014	All	Updated Company name change from Clipso Design USA to Clipso Americas Inc., and address