

Building up moments.

**MASTERTENT®**

Mastertent Fabrics

# Fire Testing & Certifications

 MASTERTENT

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<b>EN 13501-1:2007</b> Classification of Reaction to Fire Performance in Accordance with EN 13501-1:2007+A1:2009	30	EN 13501-1:2007

**MASTERTENT USA**

1859 Lindbergh Street, Suite 200  
 Charlotte, NC 28208  
 sales.usa@mastertent.com · 704.312.1600  
 www.mastertent.com

**⚠ IMPORTANT:** Read all details in this manual before using equipment to ensure proper understanding of warranty coverage and procedures. Keep this manual for future reference.



# Product & Testing Overview

## Mastertent Testing Certifications by Product

Our top quality Oxford Polyester and PVC fabrics receive fire-retardant treatments to ensure compliance with fire industry standards for public safety, in North America.

### **NFPA 701: 250D Polyester, 500D Polyester, 400g PVC**

Standard Methods for Fire Tests for Flame Propagation of Textiles and Films

### **CPAI-84 Sec.6: 250D Polyester, 500D Polyester, 400g PVC**

A Specification for Flame Resistant Materials Used In Camping Tentage

### **CAN/ULC-S109: 250D Polyester, 500D Polyester, 400g PVC**

Standard for Flame Tests of Flame Resistant Fabrics & Films

### **EN 13501-1:2007: 250D Polyester, 500D Polyester, 400g PVC**

Classification of Reaction to Fire Performance in Accordance with EN 13501-1:2007+A1:2009

### Mastertent Products by Fabric Material

#### 500D Polyester

##### **Canopy Tents:**

- Series 1 Roofs

#### 250D Polyester

##### **Canopy Tents:**

- Series 1 Sidewalls
- Series 2 Roofs
- Series 2 Sidewalls

##### **Accessories:**

- Corner Curtains
- Attachable Valance
- Double-Sided  
Flags & Banners

#### 400g PVC

##### **Canopy Tents:**

- Upgraded Roofs
- Upgraded Sidewalls
- Rescue Sidewall Base
- Transport Bag

##### **Pavilions:**

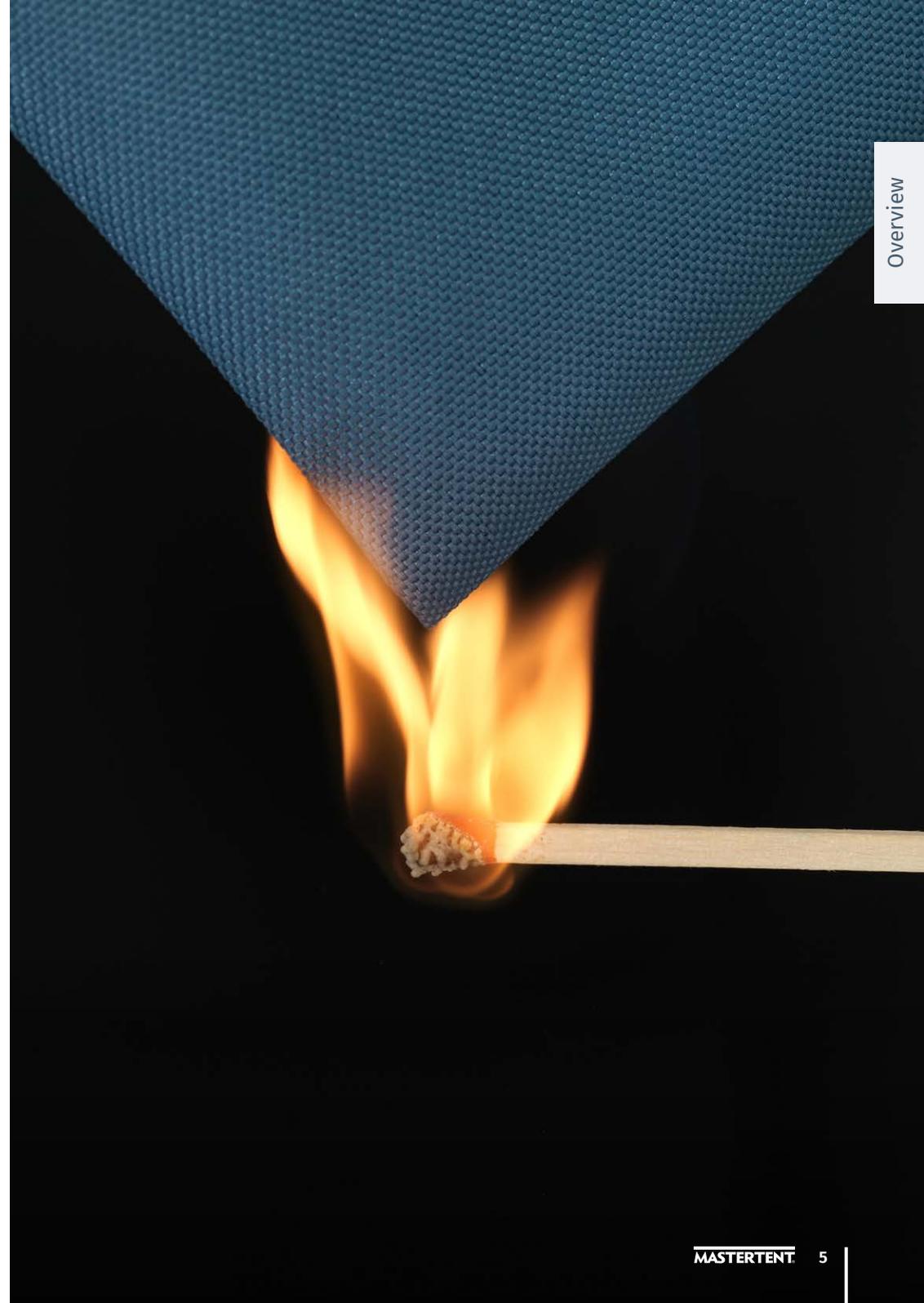
- Pavilion Roofs

##### **Accessories:**

- Rain Gutter

Please contact our team with any questions.

 704.312.1600  sales.usa@mastertent.com



NFPA 701  
Standard Methods  
for Fire Tests for  
Flame Propagation  
of Textiles and Films

# NFPA 701

## 250D Polyester



June 18, 2018

MASTERTENT USA, INC.  
1859 Lindbergh Street, Suite 200  
Charlotte, NC 28208

Reference: Laboratory Test Report  
Lab Identification No. 30751  
Invoice No. 62145

Dear Mastertent:

One (1) fabric sample, identified as **POLYESTER OXFORD 250X250D**, was received and tested in accordance with the National Fire Protection Association No. 701, "Standard Methods of Fire Tests for Flame Propagation of Textiles and Films, 2015 Edition, (Test 2, Large Scale)". The results are as follows:

### TEST RESULTS – FOLDS

Specimen Number	After Flame (seconds)	Residual Flame (seconds)	Char Length (inches)
1	0.0	0.0	12.5
2	0.0	0.0	12.5
3	0.0	0.0	11.0
4	0.0	0.0	12.0

The sample submitted **meets** the minimum requirements of the above standard. The length of char on the individual folded specimens shall not exceed 41.3 inches. Additionally, no specimen shall continue flaming for more than two (2) seconds after the test flame is removed and no residues shall fall to the floor of the test chamber and continue flaming for more than two (2) seconds at any time during the test.

If there are any questions or when we can be of further assistance, please let us know.

Sincerely,

Brian S. Dement

BSD/mr



OUR LETTERS AND REPORTS ARE FOR THE EXCLUSIVE USE OF THE CLIENT TO WHOM THEY ARE ADDRESSED. ANY COMMUNICATION TO OTHERS OR THE USE OF OUR COMPANY NAME MUST RECEIVE PRIOR APPROVAL. OUR TEST RESULTS APPLY ONLY TO THE SAMPLE TESTED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS. SAMPLES NOT DESTROYED IN TESTING ARE RETAINED A MAXIMUM OF THIRTY DAYS. THE LETTERS, REPORTS OR NAME OF DIVERSIFIED TESTING LABORATORIES, INC. MAY NOT BE USED IN ADVERTISING TO THE GENERAL PUBLIC.

# NFPA 701

## 500D Polyester



June 18, 2018

MASTERTENT USA, INC.  
1859 Lindbergh Street, Suite 200  
Charlotte, NC 28208

Reference: Laboratory Test Report  
Lab Identification No. 30751  
Invoice No. 62145

Dear Mastertent:

One (1) fabric sample, identified as **POLYESTER OXFORD 500X500D**, was received and tested in accordance with the National Fire Protection Association No. 701, "Standard Methods of Fire Tests for Flame Propagation of Textiles and Films, 2015 Edition, (Test 2, Large Scale)". The results are as follows:

### TEST RESULTS – FOLDS

Specimen Number	After Flame (seconds)	Residual Flame (seconds)	Char Length (inches)
1	0.0	0.0	12.5
2	0.0	0.0	12.0
3	0.0	0.0	11.5
4	0.0	0.0	12.0

The sample submitted **meets** the minimum requirements of the above standard. The length of char on the individual folded specimens shall not exceed 41.3 inches. Additionally, no specimen shall continue flaming for more than two (2) seconds after the test flame is removed and no residues shall fall to the floor of the test chamber and continue flaming for more than two (2) seconds at any time during the test.

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Brian S. Dement

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# NFPA 701

400g PVC



June 18, 2018

MASTERTENT USA, INC.  
1859 Lindbergh Street, Suite 200  
Charlotte, NC 28208

Reference: Laboratory Test Report  
Lab Identification No. 30751  
Invoice No. 62145

Dear Mastertent:

One (1) fabric sample, identified as **PVC FABRIC, LAMINATED 400 GR/M<sup>2</sup>**, was received and tested in accordance with the National Fire Protection Association No. 701, "Standard Methods of Fire Tests for Flame Propagation of Textiles and Films, 2015 Edition, (Test 2, Large Scale)". The results are as follows:

#### TEST RESULTS – FOLDS

<u>Specimen Number</u>	<u>After Flame (seconds)</u>	<u>Residual Flame (seconds)</u>	<u>Char Length (inches)</u>
1	0.0	0.0	19.0
2	0.0	0.0	17.5
3	0.0	0.0	18.0
4	0.0	0.0	19.0

The sample submitted **meets** the minimum requirements of the above standard. The length of char on the individual folded specimens shall not exceed 41.3 inches. Additionally, no specimen shall continue flaming for more than two (2) seconds after the test flame is removed and no residues shall fall to the floor of the test chamber and continue flaming for more than two (2) seconds at any time during the test.

If there are any questions or when we can be of further assistance, please let us know.

Sincerely,

Brian S. Dement

BSD/mr



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CPAI-84 Sec.6  
A Specification for  
Flame Resistant  
Materials Used  
In Camping Tentage

# CPAI-84 Sec. 6

250D Polyester, Page 1 of 2

**DIVERSIFIED TESTING LABORATORIES, INC.**  
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www.diversifiedtestinglabs.com

June 18, 2018

MASTERTENT USA, INC.  
1859 Lindbergh Street, Suite 200  
Charlotte, NC 28208

Reference: Laboratory Test Report

Lab Identification No. 30751  
Invoice No. 62145

Dear Mastertent:

Attached are the test results on one (1) fabric sample, identified as **POLYESTER OXFORD 250X250D**. The sample was received and tested in accordance with CPAI 84, "A Specification for Flame Resistant Materials Used In Camping Tentage," Section 6, Wall and Top Material.

Per the above test procedure, the sample was tested in its original state, after 72 hours of leaching and after 100 standard hours of accelerated weathering.

The sample submitted **meets** the minimum requirements of the above standard. When the untreated weight of the sample is over 4.0 oz./sq. yd. but not over 6.0 oz./sq. yd., the maximum average char length may not exceed 7.5 inches, with no individual specimen exceeding 10.0 inches. Additionally, the average afterflame may not exceed 2.0 seconds with no individual value exceeding 4.0 seconds and there may be no residual flame on any of the specimens tested.

If there are any questions or when we can be of further assistance, please let us know.

Sincerely,

Brian S. Dement

BSD/mr



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# CPAI-84 Sec. 6

250D Polyester, Page 2 of 2

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Lab Identification No. 30751  
Page 2

Test Procedure: CPAI 84, "A Specification for Flame Resistant Materials Used in Camping Tentage," Section 6, Wall and Top Material

Sample Identification: **POLYESTER OXFORD 250X250D**

**ORIGINAL STATE**

Specimen Number	After Flame (sec)		Residual Flame (sec)		Char Length (in)	
	Length	Width	Length	Width	Length	Width
1	0.0	0.0	0.0	0.0	4.8	5.0
2	0.0	0.0	0.0	0.0	5.3	5.3
3	0.0	0.0	0.0	0.0	5.4	4.3
4	0.0	0.0	0.0	0.0	5.2	4.2
<b>Avg.</b>	<b>0.0</b>				<b>4.9</b>	

**AFTER LEACHING**

Specimen Number	After Flame (sec)		Residual Flame (sec)		Char Length (in)	
	Length	Width	Length	Width	Length	Width
1	0.0	0.0	0.0	0.0	4.3	4.9
2	0.0	0.0	0.0	0.0	4.8	5.0
3	0.0	0.0	0.0	0.0	4.6	5.0
4	0.0	0.0	0.0	0.0	4.1	4.2
<b>Avg.</b>	<b>0.0</b>				<b>4.6</b>	

**AFTER ACCELERATED WEATHERING**

Specimen Number	After Flame (sec)		Residual Flame (sec)		Char Length (in)	
	Length	Width	Length	Width	Length	Width
1	0.0	0.0	0.0	0.0	3.8	4.7
2	0.0	0.0	0.0	0.0	5.4	4.4
3	0.0	0.0	0.0	0.0	4.1	4.2
4	0.0	0.0	0.0	0.0	4.5	4.3
<b>Avg.</b>	<b>0.0</b>				<b>4.4</b>	

CONCLUSION: **PASS**

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# CPAI-84 Sec. 6

500D Polyester, Page 1 of 2

"We Test Per Your Request" →

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July 24, 2018

MASTERTENT USA, INC.  
1859 Lindbergh Street, Suite 200  
Charlotte, NC 28208

Reference: Laboratory Test Report

Lab Identification No. 31424  
Invoice No. 62687

Dear Mastertent:

Attached are the test results on one (1) fabric sample, identified as **POLYESTER OXFORD 500X500D**. The sample was received and tested in accordance with CPAI 84, "A Specification for Flame Resistant Materials Used In Camping Tentage," Section 6, Wall and Top Material.

Per the above test procedure, the sample was tested in its original state, after 72 hours of leaching and after 100 standard hours of accelerated weathering.

The sample submitted **meets** the minimum requirements of the above standard. When the untreated weight of the sample is over 6.0 oz./sq. yd. but not over 8.0 oz./sq. yd., the maximum average char length may not exceed 6.5 inches, with no individual specimen exceeding 10.0 inches. Additionally, the average afterflame may not exceed 2.0 seconds with no individual value exceeding 4.0 seconds and there may be no residual flame on any of the specimens tested.

If there are any questions or when we can be of further assistance, please let us know.

Sincerely,

Brian S. Dement

BSD/mr



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# CPAI-84 Sec. 6

500D Polyester, Page 2 of 2

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Lab Identification No. 31424  
Page 2

Test Procedure: CPAI 84, "A Specification for Flame Resistant Materials Used in Camping Tentage," Section 6, Wall and Top Material

Sample Identification: **POLYESTER OXFORD 500X500D**

**ORIGINAL STATE**

Specimen Number	After Flame (sec)		Residual Flame (sec)		Char Length (in)	
	Length	Width	Length	Width	Length	Width
1	0.0	0.0	0.0	0.0	4.2	3.9
2	0.0	0.0	0.0	0.0	3.4	4.0
3	0.0	0.0	0.0	0.0	4.1	4.3
4	0.0	0.0	0.0	0.0	3.7	3.4
<b>Avg.</b>	<b>0.0</b>				<b>3.9</b>	

**AFTER LEACHING**

Specimen Number	After Flame (sec)		Residual Flame (sec)		Char Length (in)	
	Length	Width	Length	Width	Length	Width
1	0.0	0.0	0.0	0.0	3.5	3.2
2	0.0	0.0	0.0	0.0	3.5	2.8
3	0.0	0.0	0.0	0.0	3.0	3.0
4	0.0	0.0	0.0	0.0	2.9	3.4
<b>Avg.</b>	<b>0.0</b>				<b>3.2</b>	

**AFTER ACCELERATED WEATHERING**

Specimen Number	After Flame (sec)		Residual Flame (sec)		Char Length (in)	
	Length	Width	Length	Width	Length	Width
1	0.0	0.0	0.0	0.0	4.6	3.4
2	0.0	0.0	0.0	0.0	5.1	3.0
3	0.0	0.0	0.0	0.0	3.5	5.3
4	0.0	0.0	0.0	0.0	3.6	4.3
<b>Avg.</b>	<b>0.0</b>				<b>4.1</b>	

CONCLUSION: **PASS**

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CPAI-84 Sec.6

# CPAI-84 Sec. 6

400g PVC Roofs & Sidewalls, Page 1 of 2

**DIVERSIFIED TESTING LABORATORIES, INC.**  
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July 24, 2018

MASTERTENT USA, INC.  
1859 Lindbergh Street, Suite 200  
Charlotte, NC 28208

Reference: Laboratory Test Report

Lab Identification No. 31424  
Invoice No. 62687

Dear Mastertent:

Attached are the test results on one (1) fabric sample, identified as **POLYESTER OXFORD 500X500D**. The sample was received and tested in accordance with CPAI 84, "A Specification for Flame Resistant Materials Used In Camping Tentage," Section 6, Wall and Top Material.

Per the above test procedure, the sample was tested in its original state, after 72 hours of leaching and after 100 standard hours of accelerated weathering.

The sample submitted **meets** the minimum requirements of the above standard. When the untreated weight of the sample is over 6.0 oz./sq. yd. but not over 8.0 oz./sq. yd., the maximum average char length may not exceed 6.5 inches, with no individual specimen exceeding 10.0 inches. Additionally, the average afterflame may not exceed 2.0 seconds with no individual value exceeding 4.0 seconds and there may be no residual flame on any of the specimens tested.

If there are any questions or when we can be of further assistance, please let us know.

Sincerely,

Brian S. Dement

BSD/mr



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# CPAI-84 Sec. 6

400g PVC Roofs & Sidewalls, Page 2 of 2

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Lab Identification No. 31424  
Page 2

Test Procedure: CPAI 84, "A Specification for Flame Resistant Materials Used in Camping Tentage," Section 6, Wall and Top Material

Sample Identification: **POLYESTER OXFORD 500X500D**

**ORIGINAL STATE**

Specimen Number	After Flame (sec)		Residual Flame (sec)		Char Length (in)	
	Length	Width	Length	Width	Length	Width
1	0.0	0.0	0.0	0.0	4.2	3.9
2	0.0	0.0	0.0	0.0	3.4	4.0
3	0.0	0.0	0.0	0.0	4.1	4.3
4	0.0	0.0	0.0	0.0	3.7	3.4
<b>Avg.</b>	<b>0.0</b>				<b>3.9</b>	

**AFTER LEACHING**

Specimen Number	After Flame (sec)		Residual Flame (sec)		Char Length (in)	
	Length	Width	Length	Width	Length	Width
1	0.0	0.0	0.0	0.0	3.5	3.2
2	0.0	0.0	0.0	0.0	3.5	2.8
3	0.0	0.0	0.0	0.0	3.0	3.0
4	0.0	0.0	0.0	0.0	2.9	3.4
<b>Avg.</b>	<b>0.0</b>				<b>3.2</b>	

**AFTER ACCELERATED WEATHERING**

Specimen Number	After Flame (sec)		Residual Flame (sec)		Char Length (in)	
	Length	Width	Length	Width	Length	Width
1	0.0	0.0	0.0	0.0	4.6	3.4
2	0.0	0.0	0.0	0.0	5.1	3.0
3	0.0	0.0	0.0	0.0	3.5	5.3
4	0.0	0.0	0.0	0.0	3.6	4.3
<b>Avg.</b>	<b>0.0</b>				<b>4.1</b>	

CONCLUSION: **PASS**

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CPAI-84 Sec.6

# CPAI-84 Sec. 6

400g PVC Floors, Page 1 of 2



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June 18, 2018

MASTERTENT USA, INC.  
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Reference: Laboratory Test Report

Lab Identification No. 30751  
Invoice No. 62145

Dear Mastertent:

Attached are the test results on one (1) fabric sample, identified as **PVC FABRIC, LAMINATED 400 GR/M<sup>2</sup>**. The sample was received and tested in accordance with **CPAI 84, "A Specification For Flame Resistant Materials Used In Camping Tentage," Section 5, Flooring Material**.

Per the above test procedure, the sample was tested in its original state, after 72 hours of leaching and after 100 standard hours of accelerated weathering.

The sample submitted **meets** the minimum requirements of the above standard. No specimen shall be damaged to within 25 mm of the specimen holder.

If there are any questions or when we can be of further assistance, please let us know.

Sincerely,



Brian S. Dement

BSD/mr



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# CPAI-84 Sec. 6

400g PVC Floors, Page 2 of 2



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Lab Identification No. 30751  
Page 2

Test Procedure: CPAI 84, "A Specification For Flame Resistant Materials Used In Camping Tentage," Section 5, Flooring Material

Sample Identification: **PVC FABRIC, LAMINATED 400 GR/M<sup>2</sup>**

**ORIGINAL STATE**

<u>Specimen Number</u>	<u>Test Results</u>	<u>Uncharred Area (mm)</u>
1		84
2		89
3		89
4		86

**AFTER LEACHING**

<u>Specimen Number</u>	<u>Test Results</u>	<u>Uncharred Area (mm)</u>
1		91
2		90
3		95
4		90

**AFTER ACCELERATED WEATHERING**

<u>Specimen Number</u>	<u>Test Results</u>	<u>Uncharred Area (mm)</u>
1		89
2		84
3		84
4		86

CONCLUSION: **PASS**

OUR LETTERS AND REPORTS ARE FOR THE EXCLUSIVE USE OF THE CLIENT TO WHOM THEY ARE ADDRESSED. ANY COMMUNICATION TO OTHERS OR THE USE OF OUR COMPANY NAME MUST RECEIVE PRIOR APPROVAL. OUR TEST RESULTS APPLY ONLY TO THE SAMPLE TESTED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS. SAMPLES NOT DESTROYED IN TESTING ARE RETAINED A MAXIMUM OF THIRTY DAYS. THE LETTERS, REPORTS OR NAME OF DIVERSIFIED TESTING LABORATORIES, INC. MAY NOT BE USED IN ADVERTISING TO THE GENERAL PUBLIC.

CPAI-84 Sec.6

CAN/ULC-S109-14  
Standard for  
Flame Tests of  
Flame Resistant  
Fabrics & Films

# CAN/ULC-S109-14

250D Polyester, Page 1 of 2



December 20, 2018

MASTERTENT USA, INC.  
1859 Lindbergh Street, Suite 200  
Charlotte, NC 28208

Reference: Laboratory Test Report  
Lab Identification No. 33569  
Invoice No. 64779

Dear Mastertent:

One (1) fabric sample, identified as **250D POLYESTER**, was received and tested in accordance with CAN/ULC-S109-14, "Standard for Flame Tests of Flame-Resistant Fabrics and Films", Small-Flame Test. The results are as follows:

Specimen Number	Test Results		Damaged Length (mm)	
	Warp	Fill	Warp	Fill
1	0.0	0.0	127	130
2	0.0	0.0	142	124
3	0.0	0.0	114	124
4	0.0	0.0	122	137
5	0.0	0.0	137	155
Avg.			131	

The fabric sample submitted **meets** the minimum requirements of the Small-Flame Test. The maximum average damaged length shall not exceed 165 millimeters and the maximum damaged length for any individual specimen shall not exceed 190 millimeters. No residues shall fall to the floor of the test chamber and continue flaming for more than two (2) seconds at any time during the test.

If there are any questions or when we can be of further assistance, please let us know.

Sincerely,

Brian S. Dement

BSD/mr



OUR LETTERS AND REPORTS ARE FOR THE EXCLUSIVE USE OF THE CLIENT TO WHOM THEY ARE ADDRESSED. ANY COMMUNICATION TO OTHERS OR THE USE OF OUR COMPANY NAME MUST RECEIVE PRIOR APPROVAL. OUR TEST RESULTS APPLY ONLY TO THE SAMPLE TESTED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS. SAMPLES NOT DESTROYED IN TESTING ARE RETAINED A MAXIMUM OF THIRTY DAYS. THE LETTERS, REPORTS OR NAME OF DIVERSIFIED TESTING LABORATORIES, INC. MAY NOT BE USED IN ADVERTISING TO THE GENERAL PUBLIC.

# CAN/ULC-S109-14

250D Polyester, Page 2 of 2



December 20, 2018

MASTERTENT USA, INC.  
1859 Lindbergh Street, Suite 200  
Charlotte, NC 28208

Reference: Laboratory Test Report  
Lab Identification No. 33569  
Invoice No. 64779

Dear Mastertent:

One (1) fabric sample, identified as **250D POLYESTER**, was received and tested in accordance with CAN/ULC-S109-14, "Standard for Flame Tests of Flame-Resistant Fabrics and Films", Large-Flame Test. The results are as follows:

Specimen Number	Residual Flame (Seconds)	Char Length (Millimeters)
Length 1	0.0	76
Length 2	0.0	64
Width 1	0.0	51
Width 2	0.0	64

The fabric sample submitted **meets** the minimum requirements of the Large-Flame Test. The length of char on the individual folded specimens shall not exceed 635 millimeters. No residues shall fall to the floor of the test chamber and continue flaming for more than two (2) seconds at any time during the test.

If there are any questions or when we can be of further assistance, please let us know.

Sincerely,

Brian S. Dement

BSD/mr



OUR LETTERS AND REPORTS ARE FOR THE EXCLUSIVE USE OF THE CLIENT TO WHOM THEY ARE ADDRESSED. ANY COMMUNICATION TO OTHERS OR THE USE OF OUR COMPANY NAME MUST RECEIVE PRIOR APPROVAL. OUR TEST RESULTS APPLY ONLY TO THE SAMPLE TESTED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS. SAMPLES NOT DESTROYED IN TESTING ARE RETAINED A MAXIMUM OF THIRTY DAYS. THE LETTERS, REPORTS OR NAME OF DIVERSIFIED TESTING LABORATORIES, INC. MAY NOT BE USED IN ADVERTISING TO THE GENERAL PUBLIC.

# CAN/ULC-S109-14

500D Polyester, Page 1 of 2



August 21, 2018

MASTERTENT USA, INC.  
1859 Lindbergh Street, Suite 200  
Charlotte, NC 28208

Reference: Laboratory Test Report  
Lab Identification No. 31956  
Invoice No. 63106

Dear Mastertent:

One (1) fabric sample, identified as **POLYESTER OXFORD 500X500D**, was received and tested in accordance with CAN/ULC-S109-14, "Standard for Flame Tests of Flame-Resistant Fabrics and Films", Small-Flame Test. The results are as follows:

Specimen Number	Test Results		Damaged Length (mm)	
	Warp	Fill	Warp	Fill
1	0.0	0.0	114	79
2	0.0	0.0	89	102
3	0.0	0.0	119	102
4	0.0	0.0	114	94
5	0.0	0.0	102	89
Avg.			100	

The fabric sample submitted **meets** the minimum requirements of the Small-Flame Test. The maximum average damaged length shall not exceed 165 millimeters and the maximum damaged length for any individual specimen shall not exceed 190 millimeters. No residues shall fall to the floor of the test chamber and continue flaming for more than two (2) seconds at any time during the test.

If there are any questions or when we can be of further assistance, please let us know.

Sincerely,

Brian S. Dement

BSD/mr



OUR LETTERS AND REPORTS ARE FOR THE EXCLUSIVE USE OF THE CLIENT TO WHOM THEY ARE ADDRESSED. ANY COMMUNICATION TO OTHERS OR THE USE OF OUR COMPANY NAME MUST RECEIVE PRIOR APPROVAL. OUR TEST RESULTS APPLY ONLY TO THE SAMPLE TESTED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS. SAMPLES NOT DESTROYED IN TESTING ARE RETAINED A MAXIMUM OF THIRTY DAYS. THE LETTERS, REPORTS OR NAME OF DIVERSIFIED TESTING LABORATORIES, INC. MAY NOT BE USED IN ADVERTISING TO THE GENERAL PUBLIC.

# CAN/ULC-S109-14

500D Polyester, Page 2 of 2



August 21, 2018

MASTERTENT USA, INC.  
1859 Lindbergh Street, Suite 200  
Charlotte, NC 28208

Reference: Laboratory Test Report  
Lab Identification No. 31956  
Invoice No. 63106

Dear Mastertent:

One (1) fabric sample, identified as **POLYESTER OXFORD 500X500D**, was received and tested in accordance with CAN/ULC-S109-14, "Standard for Flame Tests of Flame-Resistant Fabrics and Films", Large-Flame Test. The results are as follows:

Specimen Number	Residual Flame (Seconds)	Char Length (Millimeters)
Length 1	0.0	140
Length 2	0.0	51
Width 1	0.0	89
Width 2	0.0	102

The fabric sample submitted **meets** the minimum requirements of the Large-Flame Test. The length of char on the individual folded specimens shall not exceed 635 millimeters. No residues shall fall to the floor of the test chamber and continue flaming for more than two (2) seconds at any time during the test.

If there are any questions or when we can be of further assistance, please let us know.

Sincerely,

Brian S. Dement

BSD/mr

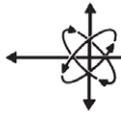


OUR LETTERS AND REPORTS ARE FOR THE EXCLUSIVE USE OF THE CLIENT TO WHOM THEY ARE ADDRESSED. ANY COMMUNICATION TO OTHERS OR THE USE OF OUR COMPANY NAME MUST RECEIVE PRIOR APPROVAL. OUR TEST RESULTS APPLY ONLY TO THE SAMPLE TESTED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS. SAMPLES NOT DESTROYED IN TESTING ARE RETAINED A MAXIMUM OF THIRTY DAYS. THE LETTERS, REPORTS OR NAME OF DIVERSIFIED TESTING LABORATORIES, INC. MAY NOT BE USED IN ADVERTISING TO THE GENERAL PUBLIC.

CAN/ULC-S109

# CAN/ULC-S109-14

400g PVC, Page 1 of 2



**DIVERSIFIED**  
TESTING LABORATORIES, INC.  
WORLDWIDE SERVICE

336 WEST FRONT STREET  
P.O. BOX 4004  
BURLINGTON, NORTH CAROLINA 27215  
PHONE (336) 227-7710 • FAX (336) 227-1175  
www.diversifiedtestinglabs.com

“We Test Per Your Request”

December 20, 2018

MASTERTENT USA, INC.  
1859 Lindbergh Street, Suite 200  
Charlotte, NC 28208

Reference: Laboratory Test Report  
Lab Identification No. 33569  
Invoice No. 64779

Dear Mastertent:

One (1) fabric sample, identified as **400G PVC**, was received and tested in accordance with CAN/ULC-S109-14, “Standard for Flame Tests of Flame-Resistant Fabrics and Films”, Small-Flame Test. The results are as follows:

Specimen Number	Residual Flame (sec)		Damaged Length (mm)	
	Warp	Fill	Warp	Fill
1	0.0	0.0	109	160
2	0.0	0.0	135	145
3	0.0	0.0	124	140
4	0.0	0.0	137	160
5	0.0	0.0	132	165
Avg.			141	

The fabric sample submitted **meets** the minimum requirements of the Small-Flame Test. The maximum average damaged length shall not exceed 165 millimeters and the maximum damaged length for any individual specimen shall not exceed 190 millimeters. No residues shall fall to the floor of the test chamber and continue flaming for more than two (2) seconds at any time during the test.

If there are any questions or when we can be of further assistance, please let us know.

Sincerely,



Brian S. Dement

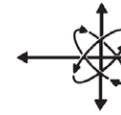
BSD/mr



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# CAN/ULC-S109-14

400g PVC, Page 2 of 2



**DIVERSIFIED**  
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December 20, 2018

MASTERTENT USA, INC.  
1859 Lindbergh Street, Suite 200  
Charlotte, NC 28208

Reference: Laboratory Test Report  
Lab Identification No. 33569  
Invoice No. 64779

Dear Mastertent:

One (1) fabric sample, identified as **400G PVC**, was received and tested in accordance with CAN/ULC-S109-14, “Standard for Flame Tests of Flame-Resistant Fabrics and Films”, Large-Flame Test. The results are as follows:

Specimen Number	Residual Flame (Seconds)	Char Length (Millimeters)
Length 1	>30.0	813
Length 2	0.0	648
Width 1	0.0	381
Width 2	>30.0	445

The fabric sample submitted **does not meet** the minimum requirements of the Large-Flame Test. The length of char on the individual folded specimens shall not exceed 635 millimeters. No residues shall fall to the floor of the test chamber and continue flaming for more than two (2) seconds at any time during the test.

If there are any questions or when we can be of further assistance, please let us know.

Sincerely,



Brian S. Dement

BSD/mr



OUR LETTERS AND REPORTS ARE FOR THE EXCLUSIVE USE OF THE CLIENT TO WHOM THEY ARE ADDRESSED. ANY COMMUNICATION TO OTHERS OR THE USE OF OUR COMPANY NAME MUST RECEIVE PRIOR APPROVAL. OUR TEST RESULTS APPLY ONLY TO THE SAMPLE TESTED AND ARE NOT NECESSARILY INDICATIVE OF THE QUALITIES OF APPARENTLY IDENTICAL OR SIMILAR PRODUCTS. SAMPLES NOT DESTROYED IN TESTING ARE RETAINED A MAXIMUM OF THIRTY DAYS. THE LETTERS, REPORTS OR NAME OF DIVERSIFIED TESTING LABORATORIES, INC. MAY NOT BE USED IN ADVERTISING TO THE GENERAL PUBLIC.

EN 13501-1:2007  
Classification of  
Reaction to Fire  
Performance  
in Accordance  
with EN 13501-  
1:2007+A1:2009



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Brandpuntlaan Zuid 16 - 2665 NZ Bleiswijk  
The Netherlands  
+31 88 3473 723  
nederland@efectis.com

### CLASSIFICATION

#### CLASSIFICATION OF REACTION TO FIRE PERFORMANCE IN ACCORDANCE WITH EN 13501-1:2007+A1:2009

Classification no.	2013-Efectis-R0497c
Sponsor	Zingerle Metal GmbH Industriezone 103 39040 Natz/Schabs Italy
Product name	Fabric LKR056300 - Polyester Oxford 250x250D
Prepared by	Efectis Nederland BV
Notified body no.	1234
Author(s)	C.C.M. Steinhage B.Sc. A.J. Lock
Project number	2013497
Date of issue	November 2013
Number of pages	5

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Efectis Nederland Report  
2013-Efectis-R0497c  
November 2013  
Zingerle Metal GmbH

### CLASSIFICATION

#### 1. INTRODUCTION

This classification report defines the classification assigned to **fabric, type LKR056300 - Polyester Oxford 250x250D** in accordance with the procedures given in EN 13501-1:2007+A1:2009.

#### 2. DETAILS OF CLASSIFIED PRODUCT

##### 2.1. GENERAL

The product, **fabric, type LKR056300 - Polyester Oxford 250x250D**, will be used as fabric for tents.

##### 2.2. PRODUCT DESCRIPTION

The product is composed of:  
**Polyester fabric, FR grade, designated LKR056300 - Polyester Oxford 250x250D**  
Surface density approx. 0.15 kg/m<sup>2</sup>.

##### 2.3. MANUFACTURER/IMPORTER

Zingerle Metal GmbH  
Industriezone 103  
39040 Natz/Schabs  
Italy

#### 3. STANDARDS, REPORTS, RESULTS AND CRITERIA IN SUPPORT OF THIS CLASSIFICATION

##### 3.1. REPORTS

Name of Laboratories	Name of sponsor	Report ref. no.	Test method
Efectis Nederland BV The Netherlands	Zingerle Metal GmbH Italy	2013-Efectis-R0497a 2013-Efectis-R0497b	EN ISO 11925-2:2010 EN 13823:2010

This report consists of five pages and may only be used in its entirety.

Page 2 / 5



Efectis Nederland Report  
2013-Efectis-R0497c  
November 2013  
Ziegler Metall GmbH

CLASSIFICATION

3.2. TEST RESULTS

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter - mean (m)	Compliance with parameters
EN-ISO 11925-2 surface flame impingement	$F_s \leq 150$ mm ignition of filter paper	6	25	-
	-		-	Compliant
Edge flame impingement	$F_s \leq 150$ mm ignition of filter paper	6	25	-
	-		-	Compliant
EN 13823	FIGRA0.2AU [W/s]	3	0.0	-
	FIGRA0.4AU [W/s]		0.0	-
	THR600s [MJ]		0.3	-
	LFS < edge		-	Compliant
	SMOGRA [m <sup>2</sup> /s <sup>2</sup> ]		4	-
	TSP600s [m <sup>2</sup> ]		60	-
	Flaming debris - flaming $\leq 10$ s - flaming $> 10$ s		-	Compliant

3.3. CLASSIFICATION CRITERIA

Fire classification of construction products and building elements Excluding floorings and linear pipe thermal insulation products			
Classification criteria	Class B	Class C	Class D
Test method(s)			
EN 13823	$FIGRA \leq 120$ W/s $LFS < \text{edge of specimen}$ $THR_{600s} \leq 7.5$ MJ	$FIGRA \leq 250$ W/s $LFS < \text{edge of specimen}$ $THR_{600s} \leq 15$ MJ	$FIGRA \leq 750$ W/s
EN ISO 11925-2 Exposure = 30 s	$F_s \leq 150$ mm within 60 s ignition of the paper in EN ISO 11925-2 results in a d2 classification.		
<b>Additional classification</b>			
Smoke production	s1 = $SMOGRA \leq 30$ m <sup>2</sup> /s <sup>2</sup> and $TSP_{600s} \leq 50$ m <sup>2</sup> ; s2 = $SMOGRA \leq 180$ m <sup>2</sup> /s <sup>2</sup> and $TSP_{600s} \leq 200$ m <sup>2</sup> ; s3 = not s1 or s2		
Flaming Droplets/particles	d0 = no flaming droplets/particles in EN 13823 within 600 s; d1 = no flaming droplets/particles persisting longer than 10 s in EN 13823 within 600 s; d2 = not d0 or d1.		



Efectis Nederland Report  
2013-Efectis-R0497c  
November 2013  
Ziegler Metall GmbH

CLASSIFICATION

4. CLASSIFICATION AND FIELD OF APPLICATION

4.1. REFERENCE OF CLASSIFICATION

This classification has been carried out in accordance with clause 11 of EN 13501-1:2007+A1:2009.

4.2. CLASSIFICATION

The product, fabric, type LKR056300 - Polyester Oxford 250x250D, in relation to its reaction to fire behaviour is classified:

B

The additional classification in relation to smoke production is:

s2

The additional classification in relation to flaming droplets / particles is:

d0

**Reaction to fire classification: B - s2, d0**

4.3. FIELD OF APPLICATION

This classification is valid for the following product parameters:

Surface density 0.15 kg/m<sup>2</sup>  
Other properties FR grade

This classification is valid for the following end use applications:

Substrate Not applicable  
Air gap Free standing  
Methods and means of fixing Not applicable  
Joints No joints  
Other aspects of end use conditions Used for tents

4.4. DURATION OF THE VALIDITY OF THIS CLASSIFICATION REPORT

There are no limitations in time on the validity of this report.



Efectis Nederland Report  
2013-Efectis-R0497c  
November 2013  
Ziegler Metak GmbH

### CLASSIFICATION

#### 5. LIMITATIONS

This classification document does not represent type approval or certification of the product.

C.C.M. Steinhage B.Sc.  
Project leader reaction to fire

A.J. Lock  
Project leader reaction to fire



P.O. Box 554 - 2665 ZH Bleiswijk  
 Brandpuntlaan Zuid 16 - 2665 NZ Bleiswijk  
 The Netherlands  
 +31 88 3473 723  
 nederland@effectis.com

### CLASSIFICATION

#### CLASSIFICATION OF REACTION TO FIRE PERFORMANCE IN ACCORDANCE WITH EN 13501-1:2007+A1:2009

Classification no. 2013 Efectis R0497f  
 Sponsor Zingerle Metal GmbH  
 Industriezone 103  
 39040 Natz/Schabs  
 Italy  
 Product name Fabric  
 LKR056400 - Polyester Oxford 500x500D  
 Prepared by Efectis Nederland BV  
 Notified body no. 1234  
 Author(s) C.C.M. Steinhage B.Sc.  
 A.J. Lock  
 Project number 2013497  
 Date of issue November 2013  
 Number of pages 5

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 Conditions of Efectis Nederland or the relevant agreement concluded between the contracting parties.  
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Efectis Nederland Report  
 2013-Efectis-R0497f  
 November 2013  
 Zingerle Metal GmbH

### CLASSIFICATION

#### 1. INTRODUCTION

This classification report defines the classification assigned to fabric, type LKR056400 - Polyester Oxford 500x500D in accordance with the procedures given in EN 13501-1:2007+A1:2009.

#### 2. DETAILS OF CLASSIFIED PRODUCT

##### 2.1. GENERAL

The product, fabric, type LKR056400 - Polyester Oxford 500x500D, will be used as fabric for tents.

##### 2.2. PRODUCT DESCRIPTION

The product is composed of:  
 Polyester fabric, FR grade, designated LKR056400 - Polyester Oxford 500x500D  
 Surface density approx. 0.225 kg/m<sup>2</sup>.

##### 2.3. MANUFACTURER/IMPORTER

Zingerle Metal GmbH  
 Industriezone 103  
 39040 Natz/Schabs  
 Italy

#### 3. STANDARDS, REPORTS, RESULTS AND CRITERIA IN SUPPORT OF THIS CLASSIFICATION

##### 3.1. REPORTS

Name of Laboratories	Name of sponsor	Report ref. no.	Test method
Efectis Nederland BV The Netherlands	Zingerle Metal GmbH Italy	2013-Efectis-R0497d 2013-Efectis-R0497e	EN ISO 11925-2:2010 EN 13823:2010

This report consists of five pages and may only be used in its entirety.

Page 2 / 5



Efectis Nederland Report  
2013-Efectis-R0497  
November 2013  
Zingster Metall GmbH

CLASSIFICATION

3.2. TEST RESULTS

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter - mean (m)	Compliance with parameters
EN-ISO 11925-2 surface flame impingement	$F_s \leq 150$ mm ignition of filter paper	6	25	-
	-		-	Compliant
Edge flame impingement	$F_s \leq 150$ mm ignition of filter paper	6	25	-
	-		-	Compliant
EN 13823	FIGRA0.2AU [W/s]	3	0.0	-
	FIGRA0.4AU [W/s]		0.0	-
	THR600s [MJ]		0.6	-
	LFS < edge		-	Compliant
	SMOGRA [m <sup>2</sup> /s <sup>2</sup> ]		7	-
	TSP600s [m <sup>2</sup> ]		83	-
	Flaming debris - flaming $\leq 10$ s - flaming $> 10$ s		-	Compliant

3.3. CLASSIFICATION CRITERIA

Fire classification of construction products and building elements Excluding floorings and linear pipe thermal insulation products			
Classification criteria			
Class	B	C	D
Test method(s)			
EN 13823	$FIGRA \leq 120$ W/s $LFS < \text{edge of specimen}$ $THR_{600s} \leq 7.5$ MJ	$FIGRA \leq 250$ W/s $LFS < \text{edge of specimen}$ $THR_{600s} \leq 15$ MJ	$FIGRA \leq 750$ W/s
EN ISO 11925-2 Exposure = 30 s	$F_s \leq 150$ mm within 60 s Ignition of the paper in EN ISO 11925-2 results in a d2 classification.		
<b>Additional classification</b>			
Smoke production	s1 = $SMOGRA \leq 30$ m <sup>2</sup> /s <sup>2</sup> and $TSP_{600s} \leq 50$ m <sup>2</sup> ; s2 = $SMOGRA \leq 180$ m <sup>2</sup> /s <sup>2</sup> and $TSP_{600s} \leq 200$ m <sup>2</sup> ; s3 = not s1 or s2		
Flaming Droplets/particles	d0 = no flaming droplets/particles in EN 13823 within 600 s; d1 = no flaming droplets/particles persisting longer than 10 s in EN 13823 within 600 s; d2 = not d0 or d1.		



Efectis Nederland Report  
2013-Efectis-R0497  
November 2013  
Zingster Metall GmbH

CLASSIFICATION

4. CLASSIFICATION AND FIELD OF APPLICATION

4.1. REFERENCE OF CLASSIFICATION

This classification has been carried out in accordance with clause 11 of EN 13501-1:2007+A1:2009.

4.2. CLASSIFICATION

The product, fabric, type LKR056400 - Polyester Oxford 500x500D, in relation to its reaction to fire behaviour is classified:

B

The additional classification in relation to smoke production is:

s2

The additional classification in relation to flaming droplets / particles is:

d0

**Reaction to fire classification: B - s2, d0**

4.3. FIELD OF APPLICATION

This classification is valid for the following product parameters:

Surface density 0.225 kg/m<sup>2</sup>  
Other properties FR grade

This classification is valid for the following end use applications:

Substrate Not applicable  
Air gap Free standing  
Methods and means of fixing Not applicable  
Joints No joints  
Other aspects of end use conditions Used for tents

4.4. DURATION OF THE VALIDITY OF THIS CLASSIFICATION REPORT

There are no limitations in time on the validity of this report.



Efectis Nederland Report  
2013-Efectis-R0497  
November 2013  
Ziegler Metak GmbH

CLASSIFICATION

5. LIMITATIONS

This classification document does not represent type approval or certification of the product.

C.C.M. Steinhage B.Sc.  
Project leader reaction to fire

A.J. Lock  
Project leader reaction to fire



**CLASSIFICATION OF REACTION TO FIRE PERFORMANCE IN ACCORDANCE WITH EN 13501-1:2007+A1:2009**

**Sponsor** Zingerlemetal AG  
Förche 7  
I-39040 Natz / Schabs (BZ)  
Italy

**Prepared by** Efectis Nederland BV  
Lange Kleiweg 5  
P.O. Box 1090  
NL-2280 CB RIJSWIJK  
The Netherlands

**Notified Body no.** 1234

**Product name** PVC fabric

**Classification report no** 2012-Efectis-R9353c

**Issue number** 1

**Date of issue** August 2012

**Project number** 2012353

This classification report consists of four pages and may only be used in its entirety.

Efectis Nederland report | 2012-Efectis-R9353c | August 2012 |  
Zingerlemetal AG

2 / 4

**1. Introduction**

This classification report defines the classification assigned to **PVC fabric** in accordance with the procedures given in EN 13501-1:2007+A1:2009.

**2. Details of classified product**

**2.1 General**

The product, **PVC fabric**, will be used for tents.

**2.2 Product description**

The product is composed of:  
Material: PVC fabric, laminated 400 gr/m<sup>2</sup>  
Specifications: PES 250x250D, 22x23 / sq.inch  
Treatment: UV + F/R  
Width: 190cm  
Colour: white

The product has a total thickness of 0.3 mm and a mass per unit area of approx. 400 kg/m<sup>2</sup>.

**2.3 Manufacturer/Importer**

Wonpoong  
South Korea

**3. Standards, reports, results and criteria in support of this classification**

**3.1 Reports**

Name of Laboratories	Name of sponsor	Report ref. no.	Test method
Efectis Nederland BV The Netherlands	Zingerlemetal AG Italy	2012-Efectis-R9353a 2012-Efectis-R9353b	EN ISO 11925-2:2010 EN 13823:2010

3.2 Test results

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – mean (m)	Compliance with parameters
EN-ISO 11925-2				
surface flame impingement	Fs ≤150 mm [mm]	6	95	-
edge flame impingement	Fs ≤150 mm [mm]	6	86	Compliant
EN 13823	Ignition of filter paper	-	-	Compliant
PVC fabric	FIGRA <sub>2MM</sub> [W/s]	3	14	-
	FIGRA <sub>4MM</sub> [W/s]		0	-
	THR <sub>600s</sub> [MJ]		0,5	-
	LFS < edge		-	Compliant
	SMOGRA [m <sup>2</sup> /s <sup>2</sup> ]		123	-
	TSP <sub>600s</sub> [m <sup>3</sup> ]		142	-
Flaming debris				
- flaming ≤ 10 s		-	-	Compliant
- flaming > 10 s		-	-	Compliant

3.3 Classification criteria

Classification criteria of the Single Burning Item (SBI) test			
Class	Fire	Class	Smoke
A2	FIGRA <sub>0,2 MJ</sub> ≤ 120 W/s LFS < edge of the long wing specimen THR <sub>600s</sub> ≤ 7,5 MJ	s1	SMOGRA ≤ 30 m <sup>2</sup> /s <sup>2</sup> TSP <sub>600s</sub> ≤ 50 m <sup>3</sup>
B	FIGRA <sub>0,3 MJ</sub> ≤ 120 W/s LFS < edge of the long wing specimen THR <sub>600s</sub> ≤ 7,5 MJ	s2	SMOGRA ≤ 180 m <sup>2</sup> /s <sup>2</sup> TSP <sub>600s</sub> ≤ 200 m <sup>3</sup>
C	FIGRA <sub>0,4 MJ</sub> ≤ 250 W/s LFS < edge of the long wing specimen THR <sub>600s</sub> ≤ 15 MJ	Class Droplets	
		d0	No flaming droplets/particles
D	FIGRA ≤ 750 W/s	d1	Flaming droplets/particles < 10 s
		d2	Not d0 or d1

4. Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with clause 11 of EN 13501-1:2007+A1:2009.

4.2 Classification

The product, PVC fabric, in relation to its reaction to fire behaviour is classified:

**B**

The additional classification in relation to smoke production is:

**s2**

The additional classification in relation to flaming droplets / particles is:

**d0**

**Reaction to fire classification: B - s2, d0**

4.3 Field of application

This classification is valid for the following product parameters:

- Thickness 0.3 mm
- Surface density 400 g/m<sup>2</sup>
- Other properties laminated

This classification is valid for the following end use applications:

- Substrate not applicable
- Air gap free standing
- Methods and means of fixing not applicable
- Joints no joints
- Other aspects of end use conditions used for tents

4.4 Duration of the validity of this classification report

There are no limitations in time on the validity of this report.

5. Limitations

This classification document does not represent type approval or certification of the product.

  
C.C.M. Spinhage B.Sc.  
Project leader reaction to fire

  
A.J. Lock  
Project leader reaction to fire

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