

CERTIFICATES

[5]

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FIRE PROTECTION

Fire Protection Classification of the X-GLOO

DIN 4102-B1 (abbr.: B1)

Regulates inspection and requirements of the reaction to fire of building materials and building components. German norm which is also used in most European countries.

CPAI 84-95, Section 6

Specification of the American Association of Sailcloth Products for the evaluation of flame-retarding materials used in (event) tents.

Due to the fact that the X-GLOO is in use worldwide as an innovative event tent, we reserve the right not to have the tent certified according to the explicit norms of other nations.

The certification according to CPAI 84 meets the international requirements for flame-retardance for tent products and includes similar inspection criteria as DIN 4102-B1 or NFP 92501-7M2.

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SKYWALK
G M B H & C O . K G

The following sample(s) was / were submitted and identified on behalf of the client as:

Sample Description : NS476 100%POLYESTER BLACK COLOR
Sam's Item No. : NS476
P.O. / Ref No. : PF-22812
Manufacturer :
Buyer : SKYWALK
Country of Destination : GERMANY
Sample Receiving Date : Apr 22, 2011
Test Performing Date : Apr 22, 2011 to May 13, 2011
Test Required : To determine the flammability (building materials class B1) in accordance with DIN 4102-1 (May 1998) Fire behaviour of building materials and elements Part 1: Classification of building materials, Requirements and testing
Test Result(s) : For further details, please refer to the following page(s)
Comments / Conclusion : Pass: After performing the following tests, the submitted sample meets the flammability requirements of class B1 of building materials under DIN 4102-1 (May 1998).

Signed for and on behalf of
SGS-CSTC Co., Ltd.

Jack Yao
Laboratory Manager

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Test Conducted:

These tests are conducted in DIN 4102-1 Clause 6.1 Class B1 materials according to the application.

I. Sample details:

Materials / Color	Fabric / Black
Weight of sample	146 g/m ²

II. Test Condition:

—	Temperature	Relative humidity	Duration
Precondition	T=(23±2)°C	(50±6)%	14 days

III. Test Requirement:

All materials, except flooring, may be classed as **B1** materials if they
 – withstand the test specified in DIN 4102-16 using the 'Brandschacht' apparatus specified in DIN 4102-15, and
 – meet the requirements for class B2 materials.

The test using the 'Brandschacht' apparatus described in DIN 4102-15 (cf. subclause 6.1.3.1) shall be deemed passed if

- the mean value for the residual length (portion of specimen that has not burned or charred; cf. subclause 9.1 of DIN 4102-16) of each specimen is at least 15 cm and no individual values are lower than 0 cm,
- the mean effluent temperature does not exceed 200 °C in any test,
- the requirement for the residual length of each specimen is met even where there is afterflame, afterglow, or smouldering.

IV. Test Results:

The test results were obtained using the specified test conditions and do not necessarily represent the behavior of the test material under other conditions of test or use.

①DIN 4102-1 B2 Test Result

Parameter	Result									
	Bottom edge ignition					Surface ignition				
	1	2	3	4	5	6	7	8	9	10
Specimen ignition (Yes / No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No
Ignition ceased time(s)	6	3	3	4	3	6	8	N/A	5	N/A
If flame tip reached the gauge mark (Yes / No)	No	No	No	No	No	No	No	No	No	No
Ignition time to reached the gauge mark(s)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Filter paper ignition (Yes / No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No
Smoke developments (visual impression)	Slight					Slight				

Class B2 Test requirement:

This test shall be deemed passed if, for any of the five specimens tested, flaming does not reach the gauge mark within 20 seconds after flame application, either with bottom edge ignition or surface ignition.

Sub-Conclusion: Pass

To be continued...

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Test Report

No. SDHGR110400750FM

Date: May 13, 2011

Page 3 of 4

② Additional DIN4102-16 Test Result

Group 1: Length

Parameter	Result				
	1	2	3	4	Average value
Remaining length (cm)	64	51	50	46	53
Max. flue gas temperature(°C)	148				
Max. flame high (cm)	38				
After flame / after glow	Not occurred				
Other observation	Debris occurred, and the specimens warping, crinkling.				

Group 2: length

Parameter	Result				
	1	2	3	4	Average value
Remaining length (cm)	58	70	56	47	58
Max. flue gas temperature(°C)	134				
Max. flame high (cm)	35				
After flame / after glow	Not occurred				
Other observation	Debris occurred, and the specimens warping, crinkling.				

Group 3: Width

Parameter	Result				
	1	2	3	4	Average value
Remaining length (cm)	71	47	60	55	58
Max. flue gas temperature(°C)	130				
Max. flame high (cm)	34				
After flame / after glow	Not occurred				
Other observation	Debris occurred, and the specimens warping, crinkling.				

Group 4: Width

Parameter	Result				
	1	2	3	4	Average value
Remaining length (cm)	65	53	60	51	57
Max. flue gas temperature(°C)	131				
Max. flame high (cm)	35				
After flame / after glow	Not occurred				
Other observation	Debris occurred, and the specimens warping, crinkling.				

Sub-Conclusion: Pass

To be continued...

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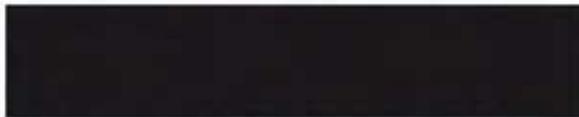
Test laboratory for the fire behavior of building materials, Dipl.-Ing. (FH) Andreas Hoch
Testing, supervising and certifying body, authorized by the building supervision authority

TEST REPORT PZ-Hoch-141005

for the proof of Fire behaviour according to DIN 4102, part 1

Translation of the German test report – no guarantee for translation of technical terms

company



description of samples -fabric consisting of polyester, coated on one side with polyurethane resin- colour: white

name of the material Lotus Light

sampling by the company itself

content of request Proof of flammability to classify building materials to class B1 "schwerentflammbar" according to DIN 4102, part 1

validity of test report 31.07.2019

result The examined product meets the requirements of class B1 for "schwerentflammbare" (hardly flammable) building materials according to DIN 4102, part 1 (May 1998) , suspended freely or with distance of >40 mm to same or other plain materials.

This test report includes 4 pages and 4 enclosures.

Remark: If the above mentioned building material is not used as product according to MBO § 2, Abs. 9, Ziffer1, there is no need for a general building supervisory test report.

This test report is not valid if the examined building material is used as product in the meaning of state building prescriptions (MBO § 17, Abs. 3).

This test report does not replace an eventually necessary proof of applicability concerning building supervisory or building laws in the meaning of state building prescriptions. This has to be verified by:

- "allgemeine bauaufsichtliche Zulassung" (general building inspectorate approval) or by
- „allgemeines bauaufsichtliches Prüfzeugnis“ (general building inspectorate certificate) or by
- "Zustimmung im Einzelfall" (exceptional approval)

This test report can underlie building supervisory procedures

- for regular building products for the prescribed proofs of conformity
- for non regular building products for the needed proofs of applicability.

This test report must not be published and copied without preceding agreement of the test laboratory and if agreed, only during validity and unchanged concerning appearance and contents.

*) prolongation on request.

PRÜF-GA-FR00-Eng-R001

member of 
notified body no.: 1508

By the DAkkS according to DIN EN ISO/IEC 17025 accredited test laboratory.
The accreditation is valid for the testing methods specified in the certificate.



1. Description of test material in condition as delivered

PN 20024: **Lotus Light**

-fabric consisting of polyester, coated on one side with polyurethane resin-
colour: white
side A: coated side
characteristic values determined by the test laboratory:
area weight: about 200 g/m² thickness: about 0,28 mm

The testing laboratory is not provided with further details concerning composition of the tested building materials. Samples are deposited.

2. Preparation of samples

The samples were kept in climate chamber 23/50 until they reached constant weight.

3. Arrangement of samples mounting: freely suspended

#5738 flaming side A in warp direction
#5739 flaming side B in warp direction
#5740 flaming side A in weft direction

4. Date of test CW 34 in 2014

5. Results The test has been examined according to DIN 4102 (Mai 1998)

line no.	Measurement	Result with the tested specimen					Dim.
		#5738	#5739	#5740	---	---	
	Test number	#5738	#5739	#5740	---	---	
	flamed direction	warp	warp	weft	---	---	
	flamed side	A	B	A	---	---	
1	Number of specimen arrangement acc. to. DIN 4102/T15, schedule 1	1	1	1	---	---	
2	Maximum flame height above bottom edge of the specimen	30	40	40			cm
3	Time ¹⁾	0:02	0:12	0:04	---	---	min:s
4	Burn through / melting Time ¹⁾	0:03	0:03	0:03	---	---	min:s
	Observations on the back side of the specimen						
	Flames / Glowing	.J.	.J.	.J.	.J.	.J.	
5	Time ¹⁾	.J.	.J.	.J.	.J.	.J.	min:s
	Change of color	.J.	.J.	.J.	.J.	.J.	
6	Time ¹⁾	.J.	.J.	.J.	.J.	.J.	min:s
	Falling of burning droplets	.J.	.J.	.J.	.J.	.J.	
7	Start ¹⁾	.J.	.J.	.J.	.J.	.J.	min:s
	Extent						
8	sporadic falling of burning droplets ²⁾	.J.	.J.	.J.	.J.	.J.	
9	continuous falling of burning droplets ²⁾	.J.	.J.	.J.	.J.	.J.	min:s
	Falling of burning droplets	.J.	.J.	.J.	.J.	.J.	
10	Start ¹⁾	.J.	.J.	.J.	.J.	.J.	min:s
	Extent	.J.	.J.	.J.	.J.	.J.	
11	sporadic falling of burning droplets ²⁾	.J.	.J.	.J.	.J.	.J.	
12	continuous falling of burning droplets ²⁾	.J.	.J.	.J.	.J.	.J.	

PZ-04-FB01 eng Rev01

line no.	Measurement	Result with the tested specimen					Dim.
		#5738	#5739	#5740	---	---	
	Test number	#5738	#5739	#5740	---	---	
	flamed direction	warp	warp	weft	---	---	
	flamed side	A	B	A	---	---	
13	<u>Afterflame time at the bottom of the sieve (max.)</u>	./.	./.	./.	./.	./.	min:s
14	<u>Impairment of the burner by dropping or falling material:</u> Time ¹⁾	./.	./.	./.	./.	./.	min:s
15	Premature end of test	./.	./.	./.	./.	./.	min:s
16	Final occurrence of burning at the specimen ¹⁾	./.	./.	./.	./.	./.	min:s
17	Time of eventually end of test ¹⁾	./.	./.	./.	./.	./.	min:s
18	<u>Afterflame after end of test</u> Time ¹⁾	./.	./.	./.	./.	./.	min:s
19	Number of specimen	./.	./.	./.	./.	./.	
20	Front side of specimen ²⁾	./.	./.	./.	./.	./.	
21	Back side of specimen ²⁾	./.	./.	./.	./.	./.	
22	flame length	./.	./.	./.	./.	./.	cm
23	<u>Afterglow after end of test</u> Time ¹⁾	./.	./.	./.	./.	./.	min:s
24	Number of specimen	./.	./.	./.	./.	./.	
25	Place of appearance	./.	./.	./.	./.	./.	
26	Lower half of the specimen ²⁾	./.	./.	./.	./.	./.	
27	Upper half of the specimen ²⁾	./.	./.	./.	./.	./.	
28	Front side of specimen ²⁾	./.	./.	./.	./.	./.	
29	Back side of specimen ²⁾	./.	./.	./.	./.	./.	
30	<u>Density of smoke</u> ≤ 400 % * min	3	6	4	---	---	% * min
31	> 400 % * min ⁴⁾	./.	./.	./.	./.	./.	% * min
32	Diagram: encl. no.	1	2	3	---	---	
33	<u>Residual lengths: individual value³⁾</u> Specimen 1	63	66	71	---	---	cm
	Specimen 2	62	67	69	---	---	cm
	Specimen 3	65	63	68	---	---	cm
	Specimen 4	66	68	64	---	---	cm
34	<u>Average value, individual test³⁾</u>	64	66	68	---	---	
35	Photo of specimen in enclosure no.	1	2	3	---	---	
36	<u>Flue gas temperature</u>	121	121	124	---	---	°C
37	Maximum of average value	09:39	09:27	09:39	---	---	min:s
38	Time ¹⁾	09:39	09:27	09:39	---	---	min:s
39	Diagram: encl. no.	1	2	3	---	---	
40	Remarks: - none -						

¹⁾ indication of times: from the begin of testing procedure

²⁾ checked off if applicable

³⁾ indication of carrier/foam layer separated in case of fire-proofing agents

⁴⁾ very strong development of smoke

6. Explanations concerning the testing procedure

There were no additional tests proceeded because of the residual length of \geq than 45 cm.

7. Summary of results and additional establishments to Fire Behaviour

line no.	measurement	Result with the tested specimen					dim ensi on
		#5738	#5739	#5740	---	---	
	test-no.						
	flamed direction	warp	warp	weft			
	flamed side	A	B	A			
1	residual length	64	66	68			cm
2	max. smoke temperature	121	121	124			°C
3	density of smoke - integral	3	6	4			%min
4	remarks: none						

According to DIN 4102, part 1, "schwerentflammbare" (hardly flammable) building materials must meet the requirements of class B2.

Pursuant to additional tests in the ignitability apparatus this can be determined (appendix 4).

8. Special remarks

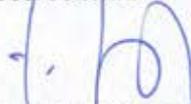
- This report is only valid for the material as described under paragraph 1. In combination with other materials or with additional coatings or grounds etc. the burning behaviour may differ.
- This test report is not valid for the exposure to outdoor climate conditions.
- This test report is not valid, as soon as the fabric is used as a building product in the sense of the "Landesbauordnungen" (state building requirements, MBO § 17, par. 3).
- This test report is no substitute for a General Building Inspectorate Certificate.
- This test report is granted without prejudice to the rights of third parties, im particular private proprietary rights.
- For legal interests only the German original version is relevant.
- In General Building Inspectorates procedures this test report can be based for
 - regular building materials for the required proof of accordance
 - for not regular building materials for the required proof of applicability

9. Validity

This test report is valid until the mentioned date on page 1. The test report becomes invalid in case the standards on which the tests are based are changed.

Fladungen, September 01st 2014

Sachbearbeiterin:



(Dipl.-Ing. (FH) Diana Günzel)



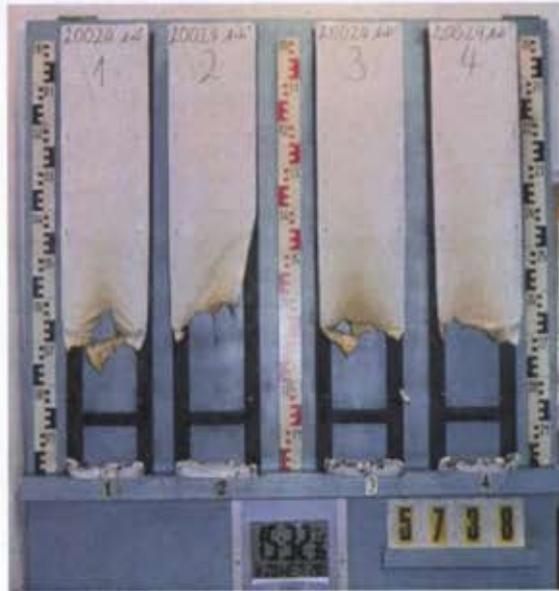
Leiter der Prüfstelle:



(Dipl.-Ing. (FH) Andreas Hoch)

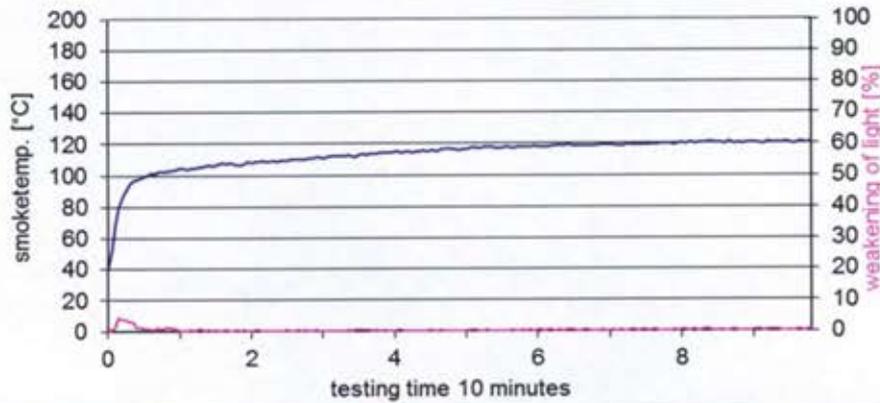


„Brandschacht“-test #5738

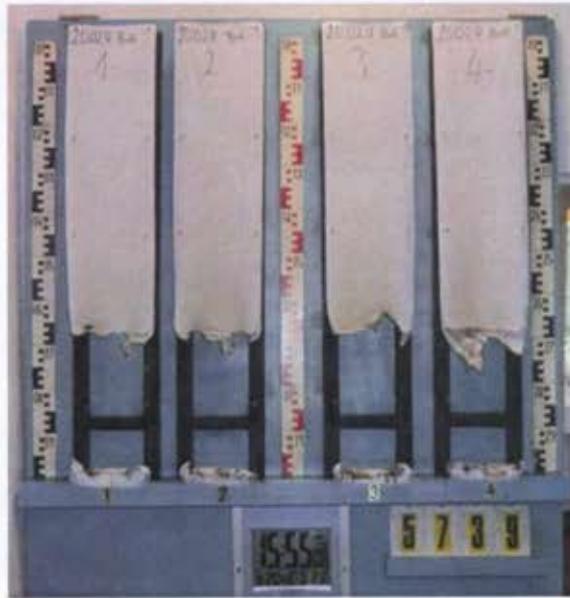


measurement

#5738, ENDUTEX, "Terra Light 200 FR", A+K, PN 20024
residual length: 64cm, max. smoketemp.: 121°C, smoke-int.: 3%/min

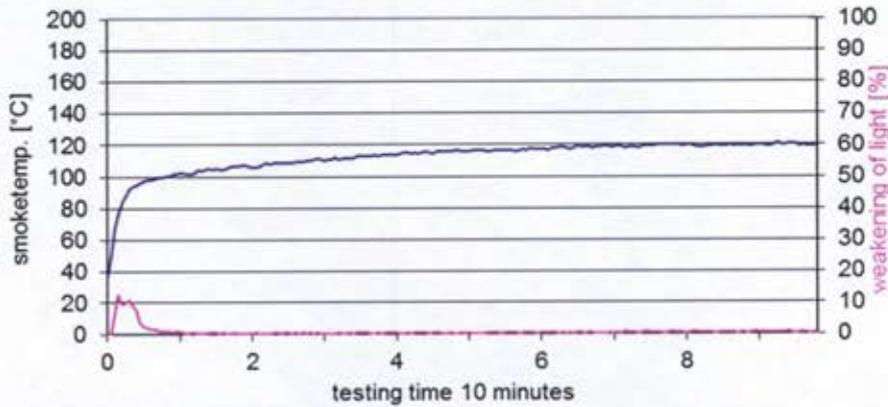


„Brandschacht“-test #5739



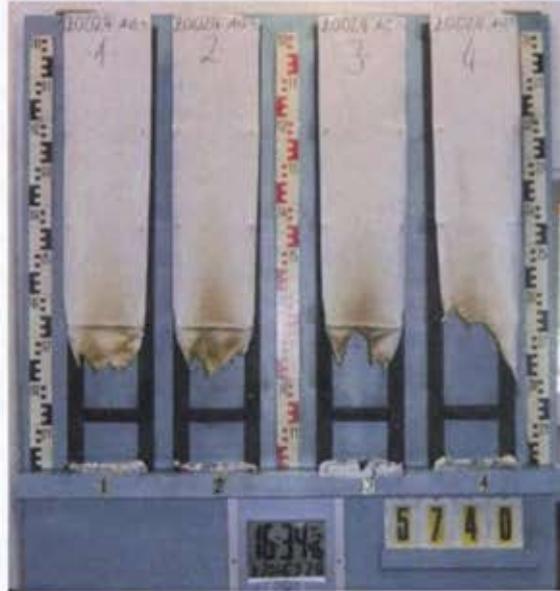
measurement

#5739, ENDUTEX, "Terra Light 200 FR", B+K, PN 20024
residual length: 66cm, max. smoketemp.: 121°C, smoke-int.: 6%/min



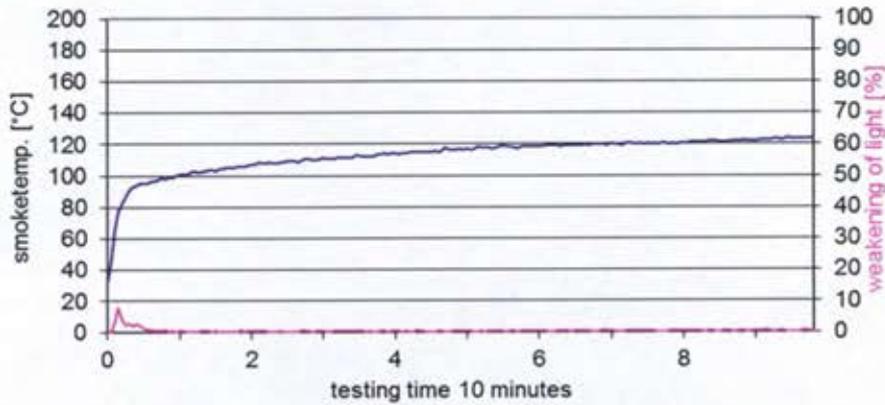
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„Brandschacht“-test #5740



measurement

#5740, ENDUTEX, "Terra Light 200 FR", A+S, PN 20024
 residual length: 68cm, max. smoketemp.: 124°C, smoke-int.: 4%/min



PZ-04-FR02-ang Rev01

**Test for normal flammability
classifying B2 according to DIN 4102**

- Description of test material in condition as delivered look at page 2
- Preparation of samples
Out of the material there have been cut samples for the ignitability apparatus.
The samples were kept in a climate 23/50 until they reached constant weight.
- Arrangement of samples -freely suspended-
Flaming in warp and weft direction / Flaming side A and side B
- Date of test CW 34 in 2014
- Results

PN 20024: flaming side A in weft direction	surface-test						edge-test						Dim
	1	2	3	4	5	6	1	2	3	4	5	6	
samples no.	1	2	3	4	5	6	1	2	3	4	5	6	
ignition ¹⁾	2	2	2	2	2	--	1	--	--	--	--	--	s
reaching the mark of measurement ¹⁾²⁾	-/-	-/-	-/-	-/-	-/-	--	-/-	--	--	--	--	--	s
max. flame height	12	14	14	13	14	--	2	--	--	--	--	--	cm
time	11	10	9	13	13	--	2	--	--	--	--	--	
self cessation of the flames end of afterflame ¹⁾	31	20	14	32	25	--	3	--	--	--	--	--	s
end of glowing ¹⁾	-/-	-/-	-/-	-/-	-/-	--	-/-	--	--	--	--	--	s
smoke development (visual)	moderate-heavy						little						/.
dropping of burning material during 20 s ¹⁾	-/-	-/-	-/-	-/-	-/-	--	-/-	--	--	--	--	--	s
Appearance after test: burned out till max. height 15 cm x width 3 cm													

PN 20024: additional tests	edge-test						surface-test						Dim
	1	2	3	4	5	6	1	2	3	4	5	6	
samples no.	1	2	3	4	5	6	1	2	3	4	5	6	
ignition ¹⁾	1	1	1	--	--	--	2	2	2	--	--	--	s
reaching the mark of measurement ¹⁾²⁾	-/-	-/-	-/-	--	--	--	-/-	-/-	-/-	--	--	--	s
max. flame height	3	4	2	--	--	--	14	12	13	--	--	--	cm
time	2	2	2	--	--	--	10	8	13	--	--	--	
self cessation of the flames end of afterflame ¹⁾	3	3	3	--	--	--	35	12	17	--	--	--	s
end of glowing ¹⁾	-/-	-/-	-/-	--	--	--	-/-	-/-	-/-	--	--	--	s
flames were extinguished after ¹⁾	-/-	-/-	-/-	--	--	--	-/-	-/-	-/-	--	--	--	s
smoke development (visual)	little						moderate-heavy						
dropping of burning material during 20 s ¹⁾	-/-	-/-	-/-	--	--	--	-/-	-/-	-/-	--	--	--	s
Appearance after test: burned out till max. height 11 cm x width 3cm													

¹⁾ time mentioned from the beginning of the test ²⁾ during 20 Sec -/- no appearance -- no information

- Remarks and explanations to the testing procedure - none -
- Opinion concerning the dropping of burning material
The test for normal flammability shows no dripping burning material.

F08-04-F001 eng Rev01



樣本檢驗報告
LAB. TESTING REPORT

- 1、客戶(M/S): [REDACTED]
 2、規格(SPECIFICATION): 250D×57"W
 PU COATING 1500 mm × F/R × UV × W/R
 3、色水(COLOR): 2728C BLUE
 4、訂單編號(ORDER NO): PF-21815
 5、試驗結果(TESTING RESULT): PASS
 7、數量(TOTAL): 1,094 YDS
 8、日期(DATE): SEP.06.2010



TESTING ITEMS			TESTING RESULT					TESTING STANDARDS
			1	2	3	4	AVE	
Flammability (As received)	Damage Length (mm)	Warp	108	109	110	110	109	CPAI- 84.SEC6
		Weft	108	110	111	107	109	
	After Flame Time (sec)	Warp	0	0	0	0	0	
		Weft	0	0	0	0	0	
Tearing Strength (kg)	Warp	2.21					ASTM D1424	
	Weft	2.12						
Tensile Strength (kg)	Warp	90 ↑					ASTM D5034	
	Weft	61.23						
Water Resistance: Hydrostatic (mm)		1570					JIS L1092 A	
Water Repellency (%)		90					AATCC 22	
Peeling Strength (kg/cm)		1.42					JIS L1086	

Conclusion : Based on the result of above flammability test, comply with the requirements of fabric Weight between 50-135 g/sp. m Those sample are less than the standards and meet with the requirements of CPAI-84 STANDARD. Which is shown as follows :

Max. Ave. Damage length (mm): 215 Max. Individual Damage Length (mm): 255
 Max. Ave. After flame time (sec): 2.0 Max. Individual after flame time (sec): 4.0

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NISHIYAI

60:41 0102 '43S '9



樣本檢驗報告
LAB. TESTING REPORT

- 1、客戶(M/S): [REDACTED]
 2、規格(SPECIFICATION): 250D×57"W 7、數量(TOTAL): 1,094 YDS
 FU COATING 1500 mm × F/R × UV × W/R 8、日期(DATE): SEP.06.2010
 3、色水(COLOR): 200C RED
 4、訂單編號(ORDER NO): PF-21815
 5、試驗結果(TESTING RESULT): PASS



TESTING ITEMS			TESTING RESULT					TESTING STANDARDS
			1	2	3	4	AVE	
Flammability (As received)	Damage Length (mm)	Warp	106	105	108	106	106	CPAI- 84.SEC6
		Weft	108	107	109	106	108	
	After Flame Time (sec)	Warp	0	0	0	0	0	
		Weft	0	0	0	0	0	
Tearing Strength (kg)	Warp	2.02					ASTM D1424	
	Weft	2.02						
Tensile Strength (kg)	Warp	76.52					ASTM D5034	
	Weft	54.82						
Water Resistance: Hydrostatic (mm)		1560					JIS L1092 A	
Water Repellency (%)		90					AATCC 22	
Peeling Strength (kg/cm)		1.35					JIS L1086	

Conclusion : Based on the result of above flammability test, comply with the requirements of fabric Weight between 50-135 g/sp. m Those sample are less than the standards and meet with the requirements of CPAI-84 STANDARD. Which is shown as follows :

Max. Ave. Damage length (mm): 215 Max. Individual Damage Length (mm): 255
 Max. Ave. After flame time (sec): 2.0 Max. Individual after flame time (sec): 4.0

NO. 119 R 5

FAHSHI

9 SEP 2010 14:10



樣本檢驗報告
LAB. TESTING REPORT

- 1、客戶(M/S): [REDACTED]
 2、規格(SPECIFICATION): 250D×57"W 7、數量(TOTAL): 1,094 YDS
 FU COATING 1500 mm × F/R × UV × W/R 8、日期(DATE): SEP.06.2010
 3、色水(COLOR): 200C RBD
 4、訂單編號(ORDER NO): PF-21815
 5、試驗結果(TESTING RESULT): PASS



TESTING ITEMS			TESTING RESULT					TESTING STANDARDS
			1	2	3	4	AVE	
Flammability (As received)	Damage Length (mm)	Warp	106	105	108	106	106	CPAI- 84.SEC6
		Weft	108	107	109	106	108	
	After Flame Time (sec)	Warp	0	0	0	0	0	
		Weft	0	0	0	0	0	
Tearing Strength (kg)	Warp	2.02					ASTM D1424	
	Weft	2.02						
Tensile Strength (kg)	Warp	76.52					ASTM D5034	
	Weft	54.82						
Water Resistance: Hydrostatic (mm)		1560					JIS L1092 A	
Water Repellency (%)		90					AATCC 22	
Peeling Strength (kg/cm)		1.35					JIS L1086	

Conclusion : Based on the result of above flammability test, comply with the requirements of fabric Weight between 50-135 g/sp. m Those sample are less than the standards and meet with the requirements of CPAI-84 STANDARD. Which is shown as follows :

Max. Ave. Damage length (mm): 215 Max. Individual Damage Length (mm): 255
 Max. Ave. After flame time (sec): 2.0 Max. Individual after flame time (sec): 4.0

NO. 119 R 5

FAHSHI

9 SEP 2010 14:10



TO :

標本檢驗報告
LAB. TESTING REPORT

- 1、客戶(M/S): [REDACTED]
 2、規格(SPECIFICATION): 250D×57"W 7、數量(TOTAL): 1,094 YDS
 PU COATING 1500 mm × F/R × UV × W/R 8、日期(DATE): SEP.06.2010
 3、色水(COLOR): BLACK
 4、訂單編號(ORDER NO): PF-21815
 5、試驗結果(TESTING RESULT): PASS



TESTING ITEMS		TESTING RESULT					TESTING STANDARDS	
		1	2	3	4	AVE		
Flammability (As received)	Damage Length (mm)	Warp	109	110	110	108	109	CPAI-84.SEC6
		Weft	110	111	108	110	110	
	After Flame Time (sec)	Warp	0	0	0	0	0	
		Weft	0	0	0	0	0	
Tearing Strength (kg)	Warp	2.02					ASTM D1424	
	Weft	2.01						
Tensile Strength (kg)	Warp	90 ↑					ASTM D5034	
	Weft	78.13						
Water Resistance: Hydrostatic (mm)		1590					JIS L1092 A	
Water Repellency (%)		90					AATCC 22	
Peeling Strength (kg/cm)		1.45					JIS L1086	

Conclusion : Based on the result of above flammability test, comply with the requirements of fabric Weight between 50-135 g/sp. m Those sample are less than the standards and meet with the requirements of CPAI-84 STANDARD. Which is shown as follows :

Max. Ave. Damage length (mm): 215 Max. Individual Damage Length (mm): 255
 Max. Ave. After flame time (sec): 2.0 Max. Individual after flame time (sec): 4.0

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[5] Certificates

X-GLOO ROOF. CPAI-84

[1] Skywalk
[2] Products
[3] Tech. Data
[4] Instructions
[5] Certificates
[6] Materials
[7] Branding
[8] Graphics
[9] Prices
[10] Examples

樣本檢驗報告
LAB. TESTING REPORT

- 1、客戶(M/S): [REDACTED]
 2、規格(SPECIFICATION): 250D×57"W 7、數量(TOTAL): 1,094 YDS
 PU COATING 1500 mm × F/R × UV × W/R 8、日期(DATE): SEP.06.2010
 3、色水(COLOR): 443C GREY
 4、訂單編號(ORDER NO): PF-21815
 5、試驗結果(TESTING RESULT): PASS



TESTING ITEMS			TESTING RESULT					TESTING STANDARDS
			1	2	3	4	AVE	
Flammability (As received)	Damage Length (mm)	Warp	108	106	106	106	107	CPAI-84.SEC6
		Weft	106	105	105	106	106	
	After Flame Time (sec)	Warp	0	0	0	0	0	
		Weft	0	0	0	0	0	
Tearing Strength (kg)	Warp	2.28					ASTM D1424	
	Weft	1.96						
Tensile Strength (kg)	Warp	80.59					ASTM D5034	
	Weft	60.44						
Water Resistance: Hydrostatic (mm)		1600					JIS L1092 A	
Water Repellency (%)		90					AATCC 22	
Peeling Strength (kg/cm)		1.53					JIS L1086	

Conclusion : Based on the result of above flammability test, comply with the requirements of fabric Weight between 50-135 g/sp. in Those sample are less than the standards and meet with the requirements of CPAI-84 STANDARD. Which is shown as follows :

Max. Ave. Damage length (mm): 215 Max. Individual Damage Length (mm): 255
 Max. Ave. After flame time (sec): 2.0 Max. Individual after flame time (sec): 4.0

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60:01 010Z '13S '9



F/R TEST REPORT (CPAI-84)

ORDER NO : #SKYWALK SAMPLE

ITEM	COLOR	TEST SAMPLE WEIGHT
70D N/T 190T FR METAL SILVER	SILVER	87g/m ²

* FLAME RETARDANT : CPAI-84

AFTER FLAME TIME(s)

	1st	2nd	3rd	4th	Average
WARP	0	0	0	0	0.0
WEFT	0	0	0	0	0.0

DRIP BURN(s)

	1st	2nd	3rd	4th	Average
WARP	0	0	0	0	0.0
WEFT	0	0	0	0	0.0

DAMAGED LENGTH(mm)

	1st	2nd	3rd	4th	Average
WARP	18.5 cm	18.0 cm	17.5 cm	17.0 cm	17.7 cm
WEFT	17.5cm	17.0 cm	16.5 cm	16.0 cm	16.7 cm

EVALUATION CRITERIA

FABRIC WEIGHT	DAMAGED LENGTH		AFTER FLAME		DRIP BURN		
	g/m ²	MAX.AVG.	MAX.IND.	MAX.AVG.	MAX.IND.	MAX.AVG.	MAX.IND.
50~135		215 mm	255 mm	2.0	4.0	0	0

ITEM	COLOR	TEST SAMPLE WEIGHT
40D N/RIP FR WATERPROOF	#655C	68g/m ²

* FLAME RETARDANT : CPAI-84

AFTER FLAME TIME(s)

	1st	2nd	3rd	4th	Average
WARP	0	0	0	0	0.0
WEFT	0	0	0	0	0.0

DRIP BURN(s)

	1st	2nd	3rd	4th	Average
WARP	0	0	0	0	0.0
WEFT	0	0	0	0	0.0

DAMAGED LENGTH(mm)

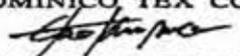
	1st	2nd	3rd	4th	Average
WARP	17.0 cm	16.0 cm	15.5 cm	15.0 cm	15.8 cm
WEFT	16.5 cm	16.0 cm	14.5 cm	14.0 cm	15.2 cm

EVALUATION CRITERIA

FABRIC WEIGHT	DAMAGED LENGTH		AFTER FLAME		DRIP BURN		
	g/m ²	MAX.AVG.	MAX.IND.	MAX.AVG.	MAX.IND.	MAX.AVG.	MAX.IND.
50~135		215 mm	255 mm	2.0	4.0	0	0

Conclusion

The submitted sample meets the performance requirements for wall and top materials as stated in CPAI-

DOMINICO TEX CO.

 PRESIDENT KYUNG-MO GOO



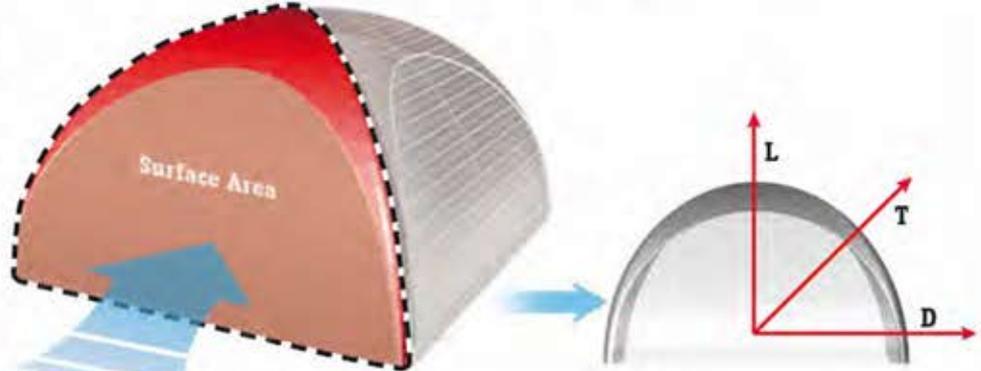
WIND RESISTANCE CERTIFICATE

FORCES

BASIS: - Wind Speed: 3.6 m/s = 1 km/h
- Density of the flowing medium: 1.224 kg/m³

- Drag Coefficient: 1 (Safety factor of 1.5; estimated actual drag coefficient of 0.6)
- Friction of Ballast Barrel and ground: 1 [material: rubber-to-asphalt]

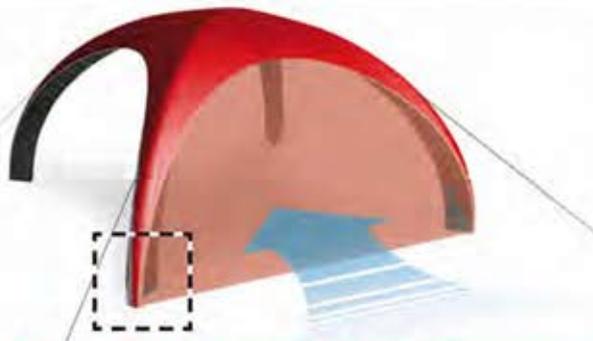
Matrix Size	Surface Area with Side Wall
4x4	6.5 m ² (70 ft ²)
5x5	10 m ² (107.6 ft ²)
6x6	14 m ² (150.7 ft ²)
8x8	25 m ² (269.1 ft ²)



Matrix Size	Drag (D) [daN]			Lift (L) [daN]			Total Force (T) [daN]		
	30 km/h wind speed (18.7 mph)	40 km/h wind speed (25 mph)	60 km/h wind speed (37.3 mph)	30 km/h wind speed (18.7 mph)	40 km/h wind speed (25 mph)	60 km/h wind speed (37.3 mph)	30 km/h wind speed (18.7 mph)	40 km/h wind speed (25 mph)	60 km/h wind speed (37.3 mph)
4x4	27.4	49.1	110.4	13.7	24.55	55.24	30.6	54.9	123.4
5x5	42.1	75.55	170	21	37.77	85	47.1	84.5	190.1
6x6	59	105.78	238	29.5	52.88	119	66	118.3	266
8x8	105.4	188.85	424.97	52.7	94.42	212.48	117.8	211.1	475.2

BALLAST RECOMMENDATIONS

Below are shown the weights necessary to secure one tube on your X-GLOO during high winds. At a minimum, this weight should be used on all tubes facing into the wind. However, in order to achieve the most security and stability we strongly recommend that you secure all four tubes on your X-GLOO.



Matrix Size	Weight Per Tube		
	30 km/h wind speed (18.7 mph)	40 km/h wind speed (25 mph)	60 km/h wind speed (37.3 mph)
4x4	16 kg (34 lbs)	28 kg (62 lbs)	63 kg (139 lbs)
5x5	24 kg (53 lbs)	43 kg (95 lbs)	97 kg (214 lbs)
6x6	34 kg (74 lbs)	60 kg (133 lbs)	136 kg (299 lbs)
8x8	60 kg (133 lbs)	108 kg (237 lbs)	242 kg (534 lbs)

X-GLOO Ballast System(s) Per Tube

Matrix Size	30 km/h wind speed (18.7 mph)	40 km/h wind speed (25 mph)	60 km/h wind speed (37.3 mph)
4x4	1x Tube Ballast	2x Tube Ballasts	1x Ballast Barrel
5x5	1x Tube Ballast	2x Tube Ballasts	1x Ballast Barrel
6x6	2x Tube Ballasts	1x Ballast Barrel	2x Ballast Barrels
8x8	1x Ballast Barrel	2x Ballast Barrels	3x Ballast Barrels + No-rub Mat



X-GLOO Creative Event Equipment

Skywalk GmbH & Co. KG, Windeckstr. 4, 83250 Marquartstein, Germany

X-GLOO Event Tent ballast recommendations based on anticipated wind speed and direction.
User note: These recommendations are valid only in cases where the X-GLOO is properly set up and anchored. Improper setup of the X-GLOO can also result in damage to the tent or possible injury to people in the surrounding area.

Approval:

Date: 01.02.2015



IMPERMEABILITY

X-GLOO Certification of the impermeability of X-GLOO Material

Skywalk GmbH & Co. KG hereby certifies that the cloth used in X-GLOO production has a water column of at least 1500 mm.

Generally, cloths with a water column of more than 800 mm can be considered impermeable.



Dipl. Ing. Manfred Kistler
Technical Manager

Skywalk GmbH & Co. KG
Bahnhofstr. 110
83224 Grassau

+49 (0) 8641 6948-0
info@skywalk.org
www.skywalk.org



UV-Protection Factor

X-GLOO Confirmation of the UV-Protection Factor of X-GLOO Materials

Skywalk GmbH & Co. KG hereby confirms that the Roof material used in X-GLOO production has a light protection factor or UPF (Ultraviolet Protection Factor) of > 50.



Dipl. Ing. Manfred Kistler
Technical Manager

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TEST REPORT

Number: TWNT00695510

Applicant: Premiere Fashion Corp.
9/F., No. 141,
Jen Ai Rd., Sec. 3,
Taipei,
Taiwan, R. O. C.

Date: Oct 17, 2011

Sample Description :

Three (3) pieces of submitted sample said to be NS476 100% Polyester woven fabric with UV coating at back, in (A) White (B) Light Blue and (C) Black.

Applicant's Provided Care Instruction/Label : -

Date Received/Date Test Started : Oct 12, 2011
Standard : NS476
Style/Article No. : -
Order No. : -
Mill : -
Buyer's Name : HOWIS
Agent's Name : -
Brand Name : -
Ref. : -

Authorized By:
On behalf of Intertek Testing Services
Taiwan Limited



Carol Peng
Director
Textile And Footwear Division

linda/daisy

Page 1 Of 3

Intertek Testing Services Taiwan Ltd.
8F., No. 423, Ruiguang Rd., Neihu District, Taipei 11492, Taiwan, R.O.C.
全國公證檢驗股份有限公司
11492 台北市內湖區瑞光路 423 號 8 樓
Tel: (+886-2) 6602-2888 · 2797-8885 Fax: (+886-2) 6602-2400 · 6602-2401



Number: TWNT00695510

Tests Conducted (As Requested By The Applicant)

1 Determination Of The UVR Transmission Of Dry Textile As Received (BS EN 13758-1:2002):

Instrument Used : Shimadzu UV-VIS Recording Spectrophotometer UV-2401PC

Wavelength Resolution : 2nm

Solar Spectrum Irradiance Used : Noonday, July 3, Sunlight, Albuquerque, nm.
No. Of Scans : 8

The Samples Are Tested In Dry And Relaxation State.

Temperature : 20±2°C

Relative Humidity : 65±2%

The Ultraviolet Protection Factor, UPF:	(A)
	>50
% Of Mean UVA Transmittance, UVA Average:	0.61%
% Of Mean UVB Transmittance, UVB Average:	<0.1%
Standard Deviation Of UPF:	11.97
Standard Deviation Of UVA:	<0.1
Standard Deviation Of UVB:	<0.1

linda/daisy

Page 2 Of 3

Intertek Testing Services Taiwan Ltd.

8F., No. 423, Ruiguang Rd., Neihu District, Taipei 11492, Taiwan, R.O.C.

全國公證檢驗股份有限公司

11492 台北市內湖區瑞光路 423 號 8 樓

Tel: (+886-2) 6602-2888 · 2797-8885 Fax: (+886-2) 6602-2400 · 6602-2401

Tests Conducted (As Requested By The Applicant)

Determination Of The UVR Transmission Of Dry Textile As Received (Cont'd)

	(B)
The Ultraviolet Protection Factor, UPF:	>50
% Of Mean UVA Transmittance, UVA Average:	8.98%
% Of Mean UVB Transmittance, UVB Average:	0.25%
Standard Deviation Of UPF:	1.63
Standard Deviation Of UVA:	0.1
Standard Deviation Of UVB:	<0.1
	(C)
The Ultraviolet Protection Factor, UPF:	>50
% Of Mean UVA Transmittance, UVA Average:	0.21%
% Of Mean UVB Transmittance, UVB Average:	<0.1%
Standard Deviation Of UPF:	13.04
Standard Deviation Of UVA:	<0.1
Standard Deviation Of UVB:	<0.1

