





## FIRE PROTECTION

### Fire Protection Classification of the X GLOO tent line

## DIN 4102-B1 (abbr.: B1)

Regulates inspection and requirements of the reaction to fire for building materials and building components. A German standard 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 tents.

Although X GLOO tents are in use worldwide, we reserve the right not to have them certified according to the explicit standards 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.

X GLOO GmbH & Co. KG Windeckstr. 4 83250 Marquartstein

> +49 (0) 8641 6948-0 info@xgloo.com www.xgloo.com







**Test Report** No: TX11975 /2018 /SP

Date: Mar. 07, 2018 Page 1 of 5

Taipei 105, Taiwan

The following sample was submitted and identified by applicant as:

Sample Description One sample of woven fabric with coating

Color Blue 2728C Fiber Content 100% Polyester Fabric Weight 265g/y; 172g/sgm

End Use Tent Style No. Nestra

Skywalk GMBH & Co. KG Buyer

PF-31084 Order No.

Manufacturer/Vendor Country of Origin Taiwan Country of Destination Germany

Applicant

Sample Receiving Date Jan. 29, 2018

Test Performance Period Jan. 29, 2018 to Mar. 07, 2018

Client's Provided Care Label Machine Wash Warm

Do Not Bleach Do Not Dry Clean Tumble Dry Low Do Not Iron

Test Performed Selected test(s) as requested by applicant.

Test Results For further details, please refer to the following page(s).

Signed for and on behalf of

SGS Taiwan Ltd.

Lin Yi Wen, Vicky **Test Specialist** 

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-end-Conditions/Terms-

 SGS Taiwan Ltd.
 31, Wu Chyuan Road, Wu Ku District, New Taipei City, Taiwan /新北市五股區五權路31號台灣檢驗科技股份有限公司

 查詢檢驗科技股份有限公司
 t (886-2) 2299-3939
 f (886-2) 2299-3227
 www.sgs.tw





Member of SGS Group

3

TWC4243641





**Test Report** 

No: TX11975 /2018 /SP

Date: Mar. 07, 2018

Page 2 of 5

Test Results:

#### **Test Requested:**

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

#### I. Test conducted

This test was conducted as per DIN 4102-15:1990 DIN 4102-16:1998 and DIN 4102-1:1998 Clause 6.2. Classification in according to DIN 4102-1 (May 1998) Clause 6.1-Class B1 materials.

II. Sample details

Color	Blue 2728C
Density	About 150g/m <sup>2</sup>
Size of sample	1000mmx190mm & 190mmx90mm

#### Conditioning

Prior to testing, the sample was conditioned at least 14 days to constant mass at a temperature of 23 ± 2 °C, and a relative humidity of 50 ± 6 %.

#### III. Test results

1) "Brandschacht" Test according to DIN 4102-15 &16

Exposed surface: The front face

Results of "Brandschacht" Test (part 1)							
Line		0.00	Test assemblies No.				
No.		Unit	Lengthwise	Widthwise			
1	Specimen fixings according to DIN 4102 part 15, table	-	1	1			
2	Max. flame height above lower sample edge;	cm	40	40			
3	Time 1)	min:s	00:26	00:22			
	Melting/burning through		Yes	Yes			
4	Time 1)	min:s	00:03	00:04			
	Back of specimen		Yes	Yes			
5	Flaming/glowing, Time 1)	min:s	00:05	00:05			
6	Discolouring, Time 1)	min:s	00:02	00:02			
	Burning droplets		Yes	Yes			
7	Begin 1)	min:s	00:08	00:10			
	<u>Amount</u>		/	/			
8	Specimen material falling off in separate droplets		1	/			
9	Specimen material falling off continuously		√	√			

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemninification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's soile responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized attention, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

TWC 4 2 4 3 6 4 2

TWC4243642

900

 SGS Taiwan Ltd.
 31, Wu Chyuan Road, Wu Ku District, New Taipei City, Taiwan /新北市五股區五權路31號台灣檢驗科技股份有限公司

 台灣檢驗科技股份有限公司
 t (886-2) 2299-3939
 f (886-2) 2299-3227
 www.sgs.tw





**Test Report** 

No: TX11975 /2018 /SP

Date: Mar. 07, 2018

Page 3 of 5

	Results of "Brandscha	acht" Tes	st (part 2)	
Line			Test asse	mblies No.
No.		Unit	Lengthwise	Widthwise
	Burning parts		Yes	Yes
10	Begin 1)	min:s	00:18	00:20
11	Parts of sample falling off separately		√	V
12	Parts of sample falling off continuously		/	1
13	Duration of continued combustion on mesh base (max.)	min:s	No	No
	Burner flame impairment by dripping/falling material		No	No
14	Time 1)	min:s	1	1
	Premature ending of test		1	/
15	End of burning at specimen 1)	min:s	1	1
16	Time when test terminated (if applicable) 1)	min:s	1	1
	Burning after end of test		No	No
17	Duration	min:s	1	/
18	Number of specimens		1	1
19	Front of specimen		1	1
20	Back of specimen		1	1
21	Height of flame	cm	1	1
	Glowing after end of test		No	No
22	Duration	min:s	1	1
23	Number of specimens		1	1
24	Front of specimen		1	1
25	Back of specimen		1	1
26	Top half of specimen		1	1
27	Bottom half of specimen		1	1

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction in issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or faisification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

TWC 4 2 4 3 6 4 3

TWC4243643





**Test Report** 

No: TX11975 /2018 /SP

Date: Mar. 07, 2018

Page 4 of 5

Results of "Brandschacht" Test (part 3)								
Line		11-2		Test assemblies No.				
No.		Unit	Lengthwise		Widthwise			
	Residual length		/		1			
20	OO Circle months	cm	70	68	72	70		
28	Single results		71	67	69	68		
29	Average of the single results	cm	69	.0	69.8			
	Smoke temperature		/ /		/			
30	Max. of average	$^{\circ}$ C	135.4		13	138.7		
31	Time 1)	min:s	07:01		06	:38		

Note: 1) time from start of testing

#### Class B1 materials:

If the residual length measured after the first test is 45cm or greater, further tests are not required.

#### 2) Normal Flammability Test according to DIN 4102-1 Clause 6.2

Bottom edge ignition

Fire application time: 15s

Parameter		Lengthwise					Crosswise			
Parameter	1	2	3	4	5	6	7	8	9	10
Whether or not flaming extinguished before reach the gauge mark(Yes/No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Whether or not flaming reach the measuring mark within 20 seconds(Yes/No)	No	No	No	No	No	No	No	No	No	No
Time for the flame tip to reach the gauge mark(s)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Afterflame time (s)	32	28	28	30	29	28	27	26	28	28
Max. flame height (cm)	9	10	10	9	9	10	10	12	11	10
Molten dripping(Yes/No)	No	No	No	No	No	No	No	No	No	No
Smoke developments (visual impression)	Slight					Slight				

Note:

NA---Not applicable

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-e-Document.aspx</a>. Attention is drawn to the limitation or liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

 SGS Teiwan Ltd.
 31, Wu Chyuan Road, Wu Ku District, New Taipei City, Taiwan /新北市五股區五權路31號台灣檢驗科技股份有限公司

 查詢檢驗科技股份有限公司
 1 (886-2) 2299-3939
 f (886-2) 2299-3227
 www.sgs.tw

Member of SGS Group

<sup>\*</sup>Reduction in number of test (DIN 4102 Par 16, clause 5.2)





**Test Report** No: TX11975 /2018 /SP Date: Mar. 07, 2018 Page 5 of 5

#### IV. DIN 4102-1:1998 Criteria for classification

- 1) All materials, except flooring, may be classed as B1 materials if they meet the following requirements a) and b):
- a) 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.
- b) Pass DIN 4102-1: 1998 sub-clause 6.2.3 Ignitability Test if
- For each specimen, flaming doesn't reach the gage mark within 20s after flame application.
- 2) Materials may be classed as **B2** materials if they pass the ignitibility test specified in DIN 4102-1: 1998 subclause 6.2.5.
- For each specimen, flaming doesn't reach the gage mark (150mm marks) within 20s after flame application.
- 3) Combustible materials which cannot be classed as B1 or B2 materials shall be classed as B3 materials.

#### **STATEMENTS**:

This test report does not replace any mandatory certification of the product that may be required.

The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire and smoke hazard of the product in use.

Classification: The tested sample meets Class B1 building materials requirements of DIN 4102-1 (May

Tested by relevant SGS laboratory.

\*\*\* End of Report \*\*\*

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a>, and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>, Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized attention, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. TWC4243645

SGS Taiwan Ltd. | 31, Wu Chyuan Road, Wu Ku District, New Taipei City, Taiwan /新北市五股區五權路31號 台灣檢驗科技股份有限公司 t (886-2) 2299-3939







Test Report No. SDHGR110400750FM

Date: May 13, 2011

Page 4 of 4

<u>V. Conclusions</u>
The sample tested <u>meets</u> the requirements of class **B1** of DIN 4102-1:1998-05.

#### Photo Appendix:



\*\*\*End of Report\*\*\*

The decirons issued by the Company setted in its general conditions of Berner prince overteel, available on registrion accessible attripential segments and conditions have decirons formed documents outgoing to ferris and Conditions for Ecotomic Bourrents of average contained and constraint. Alterials in dominate the limitation of sporting and published assessment segments between the conjugate stating and published assessment segments between the conjugate stating and published and explained assessment segments between the conjugate stating and published and explained assessment segments are published to the segment segments of the conjugate stating and published and explained assessment segments are published and explained assessments are published as a segment of the segments are published as a segment of the segment of the segments are published as a segment

SDHG 

Member of the SGS Group (SGS SA)





Warringtonfire Frankfurt GmbH Industriepark Höchst, C369 D-65926 Frankfurt am Main Germany T:+49 (0) 69 305 3882 F:+49 (0) 69 305 17071 E: info.frankfurt@warringtonfire.com W: www.warringtonfire.com



## Test report No. 2019-1389

for applying of a required "Verwendbarkeitsnachweis" issued 30.04.2019

Applicant:

Date of order: 09.04.2019
Date of sampling: 09.04.2019 no official sampling of the specimen by a representative

of Warringtonfire Frankfurt GmbH

Date of arrival: 10.04.2019

Date of test: 24.04.2019 + 25.04.2019

Order

Testing of the flammability (building class B1) according to DIN 4102-1 (May 1998)

Description / designation of the test object

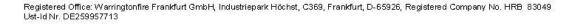
Product name: TENT 600 FRC

Description of the relevant test procedure

DIN 4102 part 1 (Mai 1998)

This test report does not replace the required "Verwendbarkeitsnachweis". It is only used for issuing the "Verwendbarkeitsnachweis".













page 2 of 8

#### 1. Description of the test material

#### 1.1 Details of the customer:

Product name: TENT 600 FRC

Probenbeschreibung:

a) Main Components: 100% PES + FR PU coated

b) Thickness: 0, 34 mm c) Grossweight: 275 g

d) Color: White (WIL081) e) Batch: Batch 96369

Face to be tested: Face = white side

Intended end use of product: Promotional tents and displays

#### 1.2 By Warringtonfire Frankfurt GmbH determined values:

Fabric sample

colour: white

thickness: 0,33 mm

Square weight: 280 g/m<sup>2</sup>

Testing after storing 14- days under climatic conditions (23°C / 50 % rel. humidity).

xgloo.com





page 3 of 8

#### 2. Test results

### Brandschachtprüfung according to DIN 4102-1

Sample A: Sample B:

Material tested in production direction. Material tested cross to the production direction.

	Test results of the Bra	andschach	it tests par	:1		
line			Measur	ements tes	st sample	
no.			Α	В	С	D
1	no. test arrangement according to DIN 4102 part 15, table 1		1	1		
2	flame height max. over lower sample edge time 1)	cm	30	30		
		min : s	00:10	00:10		
3	ascertainments on the front side Flaming/glowing time 1)	min : s	00:03	00:03		
4	melting / burning through time 1)	min : s	00:06	00:06		
5	ascertainments on the back side Flaming/glowing time 1)	min : s	no	no		
6	discolouring time 1)	min : s	no	no		
7 8 9	burning droplets begin 1) extent occasional dropping of material constant dropping of material	min : s	no	no		
10 11 12	separating from burning sample parts begin 10 occasional separating parts constant separating parts	min : s	no	no		
13	duration of burning on the sieve tray (max.)	min : s	no	no		
14	influence on the burner flame by dropping of / separating material time 1)	min : s	no	no		
15	earlier end of test end of the fire scenario on the sample 1)	min : s	no	no		
16	time of a possible resulted test stop 1)	min : s				

<sup>1)</sup> time from start of test







page 4 of 8

11.2.2	Ĭ	T T	National		e a casa a fa	
line no.		Measurements test sample				
110.			Α	В	is ya	
4-7	flaming after end of test		no	no	S	
17	duration	23-49000 00	no	no		
18 19	number of sample front side of sample	min : s	no	no		
20	backside of sample		no	no		
21	flame length	cm	no	no		
	glowing after end of test		/	/		
22	duration	min . s	no	no		
23	place of occurrence lower sample part upper sample part		no	no		
24			no	no		
2 <del>5</del>			no	no		
26			no	no	12	
27	backside of sample		no	no	A.	
	smoke density				100	
28	< 400 % x min		9	7		
<u>28</u> 29 30	> 440 % x min		/	/	12 20	
<u>30</u>	diagram in annex no.		1	2		
	residual length					
31	single results	cm	69 / 66	70 / 70		
	2005ee9 84 85 85e5		68/ 65	71 / 71		
32	average of the single results	cm	67	70		
33	photo of the sample on page		5	5		
	smoke temperature		722			
34	max. of the average results	°C	109	109		
35	time 1)	min : s	09:42	08:32		
36	diagram in annex no.		1	2		

<sup>1)</sup> time from start of test

Remarks: As the residual length was > 45 cm during the Brandschacht test, no further tests were necessary according to DIN 4102-16.

xgloo.com





page 5 of 8

## 2.1.2 Appearance of the specimen after the test:







Sample B



14





Test report No. 2019-1389 issued 30.04.2019

page 6 of 8

### 2.2.1 Normal flammability test according to DIN 4102-1

Test with edge ignition without deposit Flame application on: lower sample edge Edge ignition

Length direction

Sample-no.			_	_		-
Time from start of test			2	3	4	5
Ignition point [s]	*	1	1	1	1	1
Reaching the measuring mark vithin 20 seconds		no	no	no	no	no
Self-extinguishing of the flar	ne [s]	6	8	5	7	6
Max. flame height	[mm]	60	70	60	70	50
Time	[s]	5	6	5	6	5
End of afterflaming	[s]	_	( <del>-</del> )		<del>-</del>	
End of afterglowing	[s]	-	1=1	-	_	
Flames extinguished after	[s]	=	( <del>-</del> 0	0=0		. <del></del> 1
Smoke development (visual impression)low/modera		strong	smoke deve	lopment		
Separating from burning material		no	no	no	no	no
Time	[s]	<del></del>	-	10-20		

Remarks: none

Cross direction

Sample-no.	Sample-no.		2	3	Ä	5
Time from start of test	81	2	3	4	5	
Ignition point [s]	X04X	1	1	1	1	1
Reaching the measuring mark within 20 seconds		no	no	no	no	no
Self-extinguishing of the flar	ne [s]	4	4	4	4	4
Max. flame height	[mm]	30	30	30	30	30
Time	[s]	3	3	3	3	3
End of afterflaming	[s]	- <del></del>	151	15-6		
End of afterglowing	[s]	ē	17.6	10.00		(7)
Flames extinguished after	[s]	ē	353	h <del>a</del> s	ā	(5)
Smoke development (visual impression)low/modera	ate / strong		strong	smoke deve	lopment	26
Separating from burning ma	terial	no	no	no	no	no
Time	[s]	9	@	923	2	(8)

Remarks: none





page 7 of 8

### 2.2.4 Appearance of the sample after the small burner test:







page 8 of 8

#### Assessment

The material described in chapter one fulfils the requirements of the building class B2 according to DIN 4102-1 (Mai 1998).

The determined test results show that the material also fulfils the requirements

#### of the building class B1

according to DIN 4102-1 (Mai 1998).

#### Special note

The fire test result is only valid for the material described in chapter one in the tested colour, surface weight and thickness.

The test was carried out in free hanging configuration.

The distance to other plane material must be more or equal then 40 mm.

The material wasn't tested after an outside storage.

In combination with other materials (for example coatings, deposits) the burning behaviour could be influenced unfavourable so that the classification above is not valid any longer. According to DIN 4102-1 the burning behaviour in combination with other materials has to be tested separately.

This test report does not replace the required "Verwendbarkeitsnachweis". It is only used for issuing the "Verwendbarkeitsnachweis".

Frankfurt, the 30th April 2019

H. Anders

Tester in Charge

P. Scheinkönig

Prüfstellenleiter Bau-PVO

D-PL-18354-01-00

This Test report is valid until 23.04.2024.

The results of the tests relate only to the behaviour of the test specimen which is designated on the top.

Test reports are only allowed to be published or reproduced, not changed in form and tenor without permission of the Warringtonfire Frankfurt GmbH. The abridged account of a test report is only allowed with the agreement of the Warringtonfire Frankfurt GmbH. This test report is a translation of the German version 2019-1389 (issued 30.04.2019). In case of doubt only the German version is valid This test report contains 8 pages and 2 annexes.

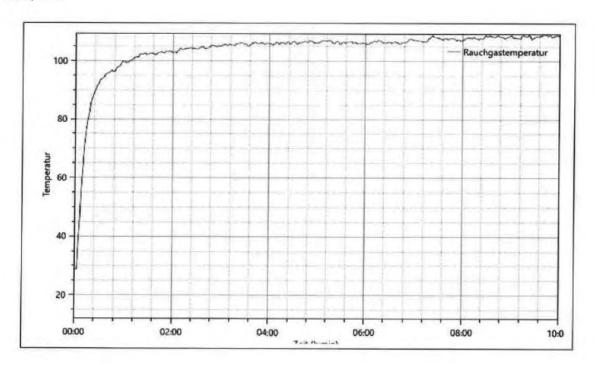
xgloo.com | 16

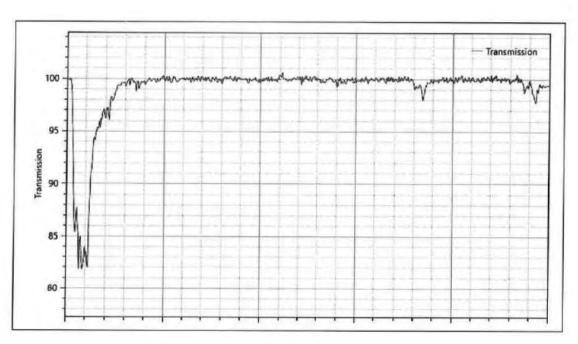




### Annex 1 to the Test report No. 2019-1389 issued 30.04.2019

### Sample A:





Registered Office: Warringtonfire Frankfurt GmbH, Industriepark Höchst, C369, Frankfurt, D-65926, Registered Company No. HRB 83049 Ust-Id Nr. DE259957713

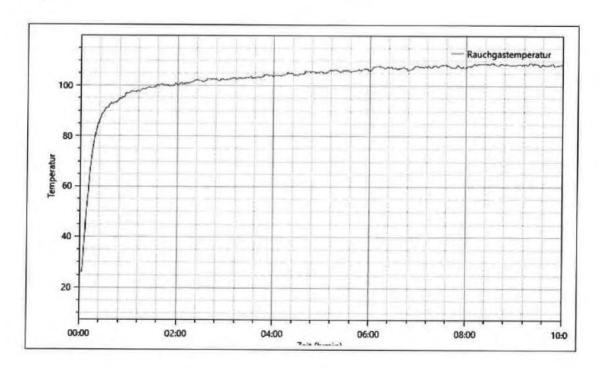
10.05.2019

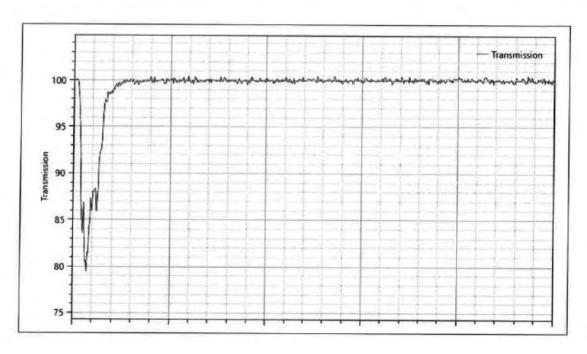






Annex 2 to the Test report No. 2019-1389 issued 30.04.2019 Sample B:









#### **Textile Laboratory**

**Test Report** 

No: TX81654 /2017 /SP

Date: Aug. 28, 2017

Page 1 of 3

Taipei 105 ,Taiwan

Sample Description

The following sample was submitted and identified by applicant as:

One sample of woven fabric WR+CPAI-84FR 1500mm w/UV color fastness to light AATCC 16 80 hrs

Red 200C Color

Fiber Content 100% Polyester

Fabric Weight 172g/m<sup>2</sup>

Construction T250D\*T250D

Style No. Nestra

Order No. PF-30404-1

Applicant

Sample Receiving Date Aug. 23, 2017

Test Performance Period Aug. 23, 2017 to Aug. 28, 2017

Test Performed Selected test(s) as requested by applicant.

Test Results For further details, please refer to the following page(s).

Signed for and on behalf of

SGS Taiwan Ltd.

Chen Chih Wei, Justin Asst. Supervisor



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sg.com/en/Terms-and-Conditions/Terms-a

TWC3122651





**Textile Laboratory** 

**Test Report** 

No: TX81654 /2017 /SP

Date: Aug. 28, 2017

Page 2 of 3

Test Results:

#### **Flammability Test**

#### Test Requested:

Flammability test of submitted sample in accordance with CPAI-84:1995 specifications Issued by Industrial Fabric Association International of USA

#### Test Result:

FLAMMABILITY TEST (CPAI-84) Sec. 6 - Wall & Top material Sample weight (10 cm × 10 cm) :  $\underline{1.7380}$  × 100 =  $\underline{173.80}$  g/m<sup>2</sup>

As Received **Pass** 

Specimen	Damaged L	ength (mm)	After-flame ti	ne (second)	
Оресппеп	Lengthwise	Widthwise	Lengthwise	Widthwise	
1	132	143	0.0	0.0	
2	130	121	0.0	0.0	
3	141	131	0.0	0.0	
4	125	138	0.0	0.0	
Average	13	33	0.	.0	

<sup>\*</sup>Continuous flaming was not observed after the dipped/broken material fell on the floor of the test cabinet.

#### 1. Damaged Length

Fabric weight (g/sq.m)	Maximum average for sample unit (mm)	Maximum for individual specimen (mm)
More than 135 but not more than 200	190	255

<sup>\*</sup> Lightweight Fabric Mass Loss Criteria

Any wall or top material with a mass of less than 200 g/m2 will be considered acceptable if the mass loss during the test is no greater than 5 percent of the original test specimen mass, regardless of the damaged length measurement.

- 2. After flame time
  - No specimen shall have an after-flame time of more than 4 seconds.
  - Average after-flame time of all specimens shall not exceed 2 seconds.
- 3. Portions or residues that break or drip from the test specimens shall not continue to flame after they reach the floor of the test cabinet.
- These requirement includes:
  - specimens that were unleached and unweathered
  - specimens that were leached but unweathered
  - specimens that were weathered but unleached
- Loads for Determining Damaged Length.
  - \* Untreated weight of material being tested more than 340 g/m<sup>2</sup> / Total tear force for determining the damaged length-350 g.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions or Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

TWC 2.7.4.7.2.6.0

TWC2747260

Member of SGS Group





**Textile Laboratory** 

**Test Report** 

No: TX81654 /2017 /SP

Date: Aug. 28, 2017

Page 3 of 3

Conclusion

The submitted sample(s) **complies with** the requirements prescribed in CPAI-84:1995 Section 3, in as received.

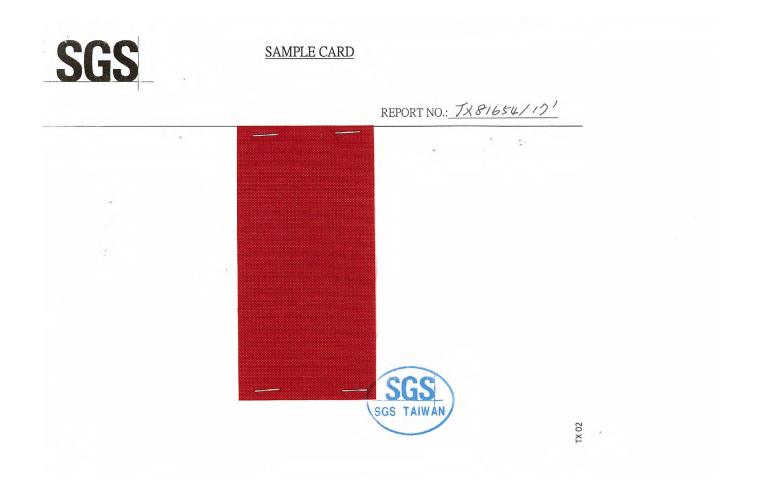
Tested by relevant SGS laboratory.

\*\*\* End of Report \*\*\*

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a>, and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-a-Document.aspx</a>, Attention is drawn to the limitation of liability, indearm-inflication and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction for exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized attention, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

TWC2747261











 Your notice of
 Your reference
 Date

 26-09-2019
 CT-261
 18-11-2019

## Analysis Report 19.05414.04

#### Modification of analysis report 19.05414.02, made on 05-11-2019

#### Required tests:

NF P92-507 (2004)

Identification number	Information given by the client	Date of receipt
T1920710	F701FR01 Heavy Tent 245 FR	26-09-2019

Gina Créelle Order responsible

réelle

This report may be reproduced, as long as it is presented in its entire form, without written permission of Centexbel. The results of the analysis cover the received samples. Centexbel is not responsible for the representativeness of the samples. In assessing compliance with the specifications, we did not take into account the uncertainty on the test results.





GENT • Technologiepark 70 • BE-9052 Zwijnaarde, Belgium • phone +32 9 220 41 51 • fax +32 9 220 49 55 • gent@centexbel.be GRÂCE-HOLLOGNE • Rue du Travail 5 • BE-4460 Grâce-Hollogne, Belgium • phone +32 4 296 82 00 • g-h@centexbel.be KORTRIJK • Etienne Sabbelaan 49 • BE-8500 Kortrijk, Belgium • phone +32 56 29 27 00 • fax +32 56 29 27 01 • info@vkc.be VAT BE 0459.218.289 • IBAN BE44 2100 4729 6545 • BIC GEBABEBB







Analysis Report 19.05414.04 Date 18-11-2019 Page 2/4

Reference: T1920710 - F701FR01 Heavy Tent 245 FR

### Water soaking procedure

Date of ending the test 09-10-2019

Standard used NF P92-512 § 6.5.6.1 (1986)

Deviation from the standard

Sample generated: T1920710\_01d

xgloo.com





Analysis Report 19.05414.04 Date 18-11-2019 Page 3/4

Reference: T1920710\_01d - F701FR01 Heavy Tent 245 FR

#### Classification of materials according to their reaction to fire - "Electric burner"

Date of ending the test 24-10-2019

Standard used NF P92-503 (1995) Product standard NF P92-507 (2004)

Deviation from the standard -

Dimension of the specimens 600 mm x 180 mm x 1 mm

Weight  $(g/m^2)$  330

Conditioning 23°C, relative humidity 50%

Minimum 7 days or until constant mass is achieved

	Ler	ngth	Wi	dth
	Face A	Face B	Face A	Face B
Hole formation	yes	yes	yes	yes
Max. afterflame time (s)	0	9	26	0
Afterglow	no	no	no	no
Afterglow with propagation in area > 25 cm	no	no	no	no
Damaged length (cm)	19.0	20.0	18.5	20.0
Damaged width (cm) in area >45 cm	0	0	0	0
Flaming molten droplets	no	no	no	no
Non-flaming molten droplets	no	yes	no	no
Flaming debris	no	no	no	no
Non-flaming debris	no	no	no	no
Average damaged length (cm)	19.5			
Average damaged width (cm)	0			
in area > 45 cm				





Analysis Report 19.05414.04 Date 18-11-2019 Page 4/4

Reference: T1920710\_01d - F701FR01 Heavy Tent 245 FR

#### Classification of materials according to their reaction to fire - "Test for melting materials"

Date of ending the test 05-11-2019

Standard used NF P92-505 (1995) Product standard NF P92-507 (2004)

Deviation from the standard -

Dimension of the specimens 70 mm x 70 mm x 1 mm

Number of layers 2 Weight (g/m²) 330

The test specimens have not been cleaned nor submitted to an accelerated ageing procedure

Conditioning 23°C, relative humidity 50%

Minimum 7 days or until constant mass is achieved

Four specimens, two on both sides, have been tested .

		First	Non-flaming	Flaming	Ignition cotton	Mass
		ignition (s)	debris	debris	wool	(g)
#1	face A	35	yes	no	no	2.9
#2	face B	*	yes	no	no	3.0
#3	face A	*	yes	no	no	3.0
#4	face B	*	yes	no	no	3.0

<sup>\*</sup> no ignition

#### Classification M2





Texo Trade Services B.V. Oostbaan 601 2841 ML MOORDRECHT Nederland

Votre message du 26-09-2019 Votre référence CT-261 **Date** 24-02-2020

Rapport d'analyse 19.05414.05

Modification du rapport d'analyse 19.05414.02, établi le 05-11-2019

Essais demandés:

NF P92-507 (2004)

Numéro d'identification	Informations données par le client	Date de réception
T1920710	F701FR01 Heavy Tent 245 FR	26-09-2019

Gina Créelle

Responsable de la commande de tests

Ce rapport ne peut être reproduit que dans son intégralité, sans permission écrite de Centexbel. Les résultats d'analyse valent pour les échantillons reçus. Centexbel n'est pas responsable de la représentativité des échantillons. Pour déclarer ou non la conformité à la spécification, il n'a pas été tenu compte de l'incertitude associée au résultat.





GENT • Technologiepark 70 • BE-9052 Zwijnaarde, Belgium • phone +32 9 220 41 51 • fax +32 9 220 49 55 • gent@centexbel.be GRÂCE-HOLLOGNE • Rue du Travail 5 • BE-4460 Grâce-Hollogne, Belgium • phone +32 4 296 82 00 • g-h@centexbel.be KORTRIJK • Etienne Sabbelaan 49 • BE-8500 Kortrijk, Belgium • phone +32 56 29 27 00 • fax +32 56 29 27 01 • info@vkc.be VAT BE 0459.218.289 • IBAN BE44 2100 4729 6545 • BIC GEBABEBB







Rapport d'analyse 19.05414.05 Date 24-02-2020 Page 2/4

Référence: T1920710 - F701FR01 Heavy Tent 245 FR

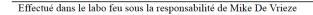
### Procédure de trempage

Date de la fin de l'essai 09-10-2019

Norme appliquée NF P92-512 § 6.5.6.1 (1986)

Déviation de la norme -

Echantillon résultant: T1920710 01d









Rapport d'analyse 19.05414.05 Date 24-02-2020 Page 3/4

Référence: T1920710\_01d - F701FR01 Heavy Tent 245 FR

## Classement des matériaux selon leur réaction au feu - "Brûleur électrique"

Date de la fin de l'essai 24-10-2019

Norme appliquée NF P92-503 (1995) Norme de produit NF P92-507 (2004)

Déviation de la norme -

Dimension des éprouvettes 600 mm x 180 mm x 1 mm

Masse  $(g/m^2)$  330

Conditionnement 23°C, humidité relative 50%

Au moins 7 jours ou jusqu'à obtention de la masse constante

	Longueur		Larg	geur
	Face A	Face B	Face A	Face B
Percement du matériau	oui	oui	oui	oui
Temps d'inflammation max. (s)	0	9	26	0
Points en ignition	non	non	non	non
Points en ignition + effet de propagation (zone	non	non	non	non
>25 cm)				
Zone détruite, longueur (cm)	19,0	20,0	18,5	20,0
Zone détruite, largeur (cm) dans la zone >45 cm	0	0	0	0
Chute de gouttes enflammées	non	non	non	non
Chute de gouttes non-enflammées	non	oui	non	non
Chute de particules enflammées	non	non	non	non
Chute de particules non-enflammées	non	non	non	non
Moyenne des longueurs détruites (cm)	19,5			
Zone détruite, moyenne largeur (cm)	0			
dans la zone >45 cm				







 $\begin{array}{c} \text{Rapport d'analyse} \quad 19.05414.05 \\ \text{Date} \quad 24\text{-}02\text{-}2020 \\ \text{Page} \quad 4/4 \end{array}$ 

Référence: T1920710\_01d - F701FR01 Heavy Tent 245 FR

#### Classement des matériaux selon leur réaction au feu - "Essai pour matériaux thermofusibles"

Date de la fin de l'essai 05-11-2019

Norme appliquée NF P92-505 (1995) Norme de produit NF P92-507 (2004)

Déviation de la norme -

Dimension des éprouvettes 70 mm x 70 mm x 1 mm

Nombre de couches 2 Masse (g/m²) 330

Les éprouvettes ne sont ni nettoyées ni soumises à un vieillissement accéléré

Conditionnement 23°C, humidité relative 50%

Au moins 7 jours ou jusqu'à obtention de la masse constante

Quatre échantillons ont été soumis à l'essai - deux essais sur chaque face du produit.

		Première	Gouttes non-	Gouttes	Inflammation	Masse
		inflammation	enflammées	enflammées	de la ouate	(g)
		(s)				
#1	face A	35	oui	non	non	2,9
#2	face B	*	oui	non	non	3,0
#3	face A	*	oui	non	non	3,0
#4	face B	*	oui	non	non	3,0

<sup>\*</sup> pas d'inflammation

#### Classement M2





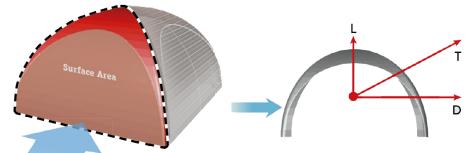
## WIND RESISTANCE CERTIFICATE

### **FORCES**

BASIS: - Wind Speed: 1 m/s = 3.6 km/h

- Density of the flowing medium: 1.224 kg/m<sup>II</sup>
- 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]

Size	Surface Area with Side Wall	
XC 3	5.4 m² (58ft²)	
XG 4	6.5 m² (70 ft²)	
XG 5	10 m² (107.6 ft²)	
XG 6	14 m² (150.7ft²)	
XG 8	25 m² (269.1ft²)	



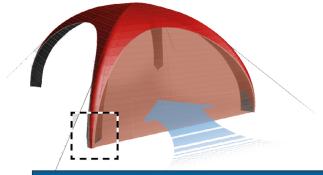
	Drag (D) [c	Drag (D) [daN]				
Size	30 km/h wind speed (18.7 mph)	40 km/h wind speed (25 mph)	60 km/h wind speed (37.3 mph)			
XC 3	22.8	40.5	91.3			
XG 4	27.4	49.1	110.4			
XG 5	42.1	75.55	170.0			
XG 6	59.0	105.78	238.0			
XG 8	105.4	188.85	424.97			

Lift (L) [daN]				
30 km/h wind speed (18.7 mph)	40 km/h wind speed (25 mph)	60 km/h wind speed (37.3 mph)		
11.4	20.3	45.7		
13.7	24.55	55.24		
21.0	37.77	85		
29.5	52.88	119.0		
52.7	94.42	212.48		

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)		
25.5	45.3			
30.6	54.9	123.4		
47.1	84.5	190.1		
66.0	118.3	266.0		
117.8	211.1			

## **BALLAST RECOMMENDATIONS**

Below are shown the weights necessary to secure one tube on your X GLOO tent 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 tent.



	Weight 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)
XC 3	13 kg (28 lbs)	23 kg (49 lbs)	
XG 4	16 kg (34 lbs)	28 kg (62 lbs)	63 kg (139 lbs)
XG 5	24 kg (53 lbs)	43 kg (95 lbs)	97 kg (2141bs)
XG 6	34 kg (74 lbs)	60 kg (133 lbs)	136 kg (299 lbs)
XG 8	60 kg (133 lbs)	108 kg (237 lbs)	

	X GLOO Ballast System(s) per Tube		
Size	30 km/h wind speed (18.7 mph)	40 km/h wind speed (25 mph)	60 km/h wind speed (37.3 mph)
XC 3	1x Tube Ballast	2x Tube Ballasts	
XG 4	1x Tube Ballast	2x Tube Ballasts	1x Ballast Barrel
XG 5	1x Tube Ballast	2x Tube Ballasts	1x Ballast Barrel
XG 6	2x Tube Ballasts	1x Ballast Barrel	2x Ballast Barrels
XG 8	1x Ballast Barrel	2x Ballast Barrels	



#### X GLOO - SHAPING AIR

X GLOO GmbH & Co. KG, Windeckstr. 4, 83250 Marquartstein, Germany

Ballast recommendations for X GLOO tents based on anticipated wind speed and direction

User note: These recommendations are valid only in cases where the XGLOO tent is properly set up and anchored. Improper setup of the XGLOO tent can also result in damage to the tent and possible injury to people in the surrounding area.

Approval: i. t. Waulum Date: 01.01.2019

1

Τ,

D



# WIND RESISTANCE CERTIFICATE

## **FORCES**

BASIS: - Wind Speed: 1 m/s = 3.6 km/h

- Density of the flowing medium: 1.224 kg/m $^{\!3}$
- Drag Coefficient: 1 (Safety factor of 1.2; estimated actual drag coefficient of 0.6
- Friction of Ballast Barrel and ground: 1 [material: rubber-to-asphalt]

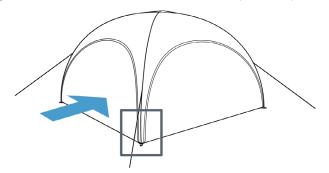
Size	Surface Area with Side Wall
XC 3	5,4 m² (58 ft²)
XD 4	8,5m² (91.5ft²)
XD 5	13m² (139.9 ft²)
XD 6	19m² (204.5ft²)
XD7	26 m² (279.8 ft²)



	Drag (D) [daN]			Lift (L) [daN]			Total Force (T) [daN]		
Size	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)
XC 3	22,8	40,5	91,3	11,4	20,3	45,7	25,5	45,3	
XD 4	24,2	51,7	115,0	11,3	39,6	60,8	35,5	68,0	175,8
XD 5	37,0	79,1	175,9	17,6	42,0	195,0	54,7	121,2	271,0
XD 6	54,1	115,6	257,1	25,4	60,6	136,8	79,6	176,2	305,7
XD 7	74,1	158,3	351,9	34,6	82,4	186,2	108,7	240,0	

## **BALLAST RECOMMENDATIONS**

Below are shown the weights necessary to secure one tube on your X GLOO tent 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 tent.



	Weight per Tube				
Size	30 km/h wind speed (18.7 mph)	40 km/h wind speed (25 mph)	60 km/h wind speed (37.3 mph)		
XC3	13 kg (28 lbs)	23 kg (49 lbs)			
XD 4	18 kg (39 lbs)	34 kg (75 lbs)	89 kg (1961bs)		
XD 5	27 kg (591bs)	60 kg (132 lbs)	135 kg (297 lbs)		
XD 6	40 kg (88 lbs)	88 kg (1941bs)	153 kg (337 lbs)		
XD7	54 kg (119 lbs)	120kg (264lbs)			

	X GLOO Ballast System(s) per Tube				
Size	30 km/h wind speed (18.7 mph)	40 km/h wind speed (25 mph)	60 km/h wind speed (37.3 mph)		
XC 3	1x Tube Ballast	2x Tube Ballasts			
XD 4	1x Tube Ballast	2x Tube Ballasts	1x Ballast Barrel		
XD 5	1x Tube Ballast	2x Tube Ballasts	2x Ballast Barrels		
XD 6	2x Tube Ballasts	1x Ballast Barrel	2x Ballast Barrels		
XD 7	1x Ballast Barrel	2x Ballast Barrels			



#### X GLOO - SHAPING AIR

X GLOO GmbH & Co. KG, Windeckstr. 4, 83250 Marquartstein, Germany

Ballast recommendations for X GLOO tents based on anticipated wind speed and direction.

User note: These recommendations are valid only in cases where the XGLOO tent is properly set up and anchored. Improper setup of the X GLOO tent can also result in damage to the tent and possible injury to people in the surrounding area.

Approval: i. A. Wellum

Date: 01.01.2019

32



## **IMPERMEABILITY**

## X GLOO certification of the impermeability of X GLOO tent materials.

X GLOO GmbH & Co. KG hereby certifies that the materials used for the production of X GLOO tents have a water column of at least 1500 mm.

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

Thomas Allertseder

X GLOO GmbH & Co. KG Windeckstr. 4 83250 Marquartstein

> +49 (0) 8641 6948-0 info@xgloo.com www.xgloo.com



## **UV-PROTECTION FACTOR**

X GLOO confirmation of the UV protection factor of X GLOO tent materials.

X GLOO GmbH & Co. KG hereby confirms that the materials used for the production of X GLOO tents have a light protection factor, or UPF (Ultraviolet Protection Factor), of > 50.

Thomas Allertseder

X GLOO GmbH & Co. KG Windeckstr. 4 83250 Marquartstein

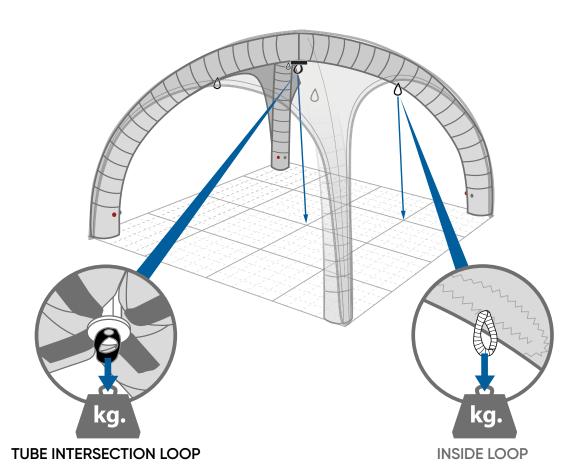
> +49 (0) 8641 6948-0 info@xgloo.com www.xgloo.com



## MAXIMUM WEIGHT CERTIFICATE

The loops on X GLOO tents have been designed to bear the hanging loads described below when the tents are properly set up and anchored.

The user shall be held liable for any damage to property or injury to persons. Skywalk GmbH & Co. KG assumes no liability.



Size	Maximum Weight per Inside Loop	Maximum Weight Tube Intersection Loop	Maximum Total Combined Weight
XC 3	5 kg (11 lbs)	10 kg (22 lbs)	30 kg (66 lbs)
XG 4	5 kg (11 lbs)	15 kg (33 lbs)	35 kg (77 lbs)
XG 5	5 kg (11 lbs)	20 kg (44 lbs)	40 kg (88 lbs)
XG 6	5 kg (11 lbs)	20 kg (44 lbs)	40 kg (88 lbs)
XG 8	5 kg (11 lbs)	25 kg (55 lbs)	45 kg (99 lbs)



#### X GLOO - SHAPING AIR

#### X GLOO GmbH & Co. KG, Windeckstr. 4, 83250 Marquartstein, Germany

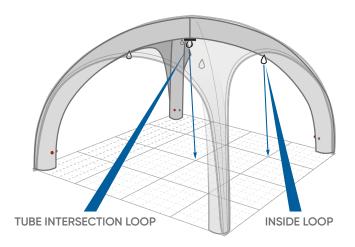
Please Note: These recommendations are valid only in cases where the X GLOO tent is properly set up and anchored. Improper setup of the X GLOO tent can also result in damage to the tent and/or injury to people in the surrounding area.

Approval: A. Welleum	Date: 01.01.2019



## **MAXIMUM WEIGHT**

The loops on X GLOO tents have been designed to bear the hanging loads described below when the tents are properly set up and anchored. The user shall be held liable for any damage to property or injury to persons. X GLOO GmbH & Co. KG assumes no liability.



Size	Maximum Weight per Inside Loop	Maximum Weight Tube Intersection Loop	Maximum Total Combined Weight
XC 3	5 kg (11 lbs)	10 kg (22 lbs)	30 kg (66 lbs)
XD 4	5 kg (11 lbs)	15 kg (33 lbs)	35 kg (77 lbs)
XD 5	5 kg (11 lbs)	20 kg (44 lbs)	40 kg (88 lbs)
XD 6	5 kg (11 lbs)	20 kg (44 lbs)	40 kg (88 lbs)
XD 7	5 kg (11 lbs)	25 kg (55 lbs)	45 kg (99 lbs)

X GLOO SHAPING AIR
--------------------

X GLOO - SHAPING AIR							
	v		$\sim$	CI			A ID
	Ā	(71	( )( )	- 25	142	11/1( ->	AIR

X GLOO GmbH & Co. KG, Windeckstr. 4, 83250 Marquartstein, Germany

**Please Note:** These recommendations are valid only in cases where the X GLOO tent is properly set up and anchored. Improper setup of the X GLOO tent can also result in damage to the tent and/or injury to people in the surrounding area.

Approval: i. A. Wallum Date: 01.03.2019