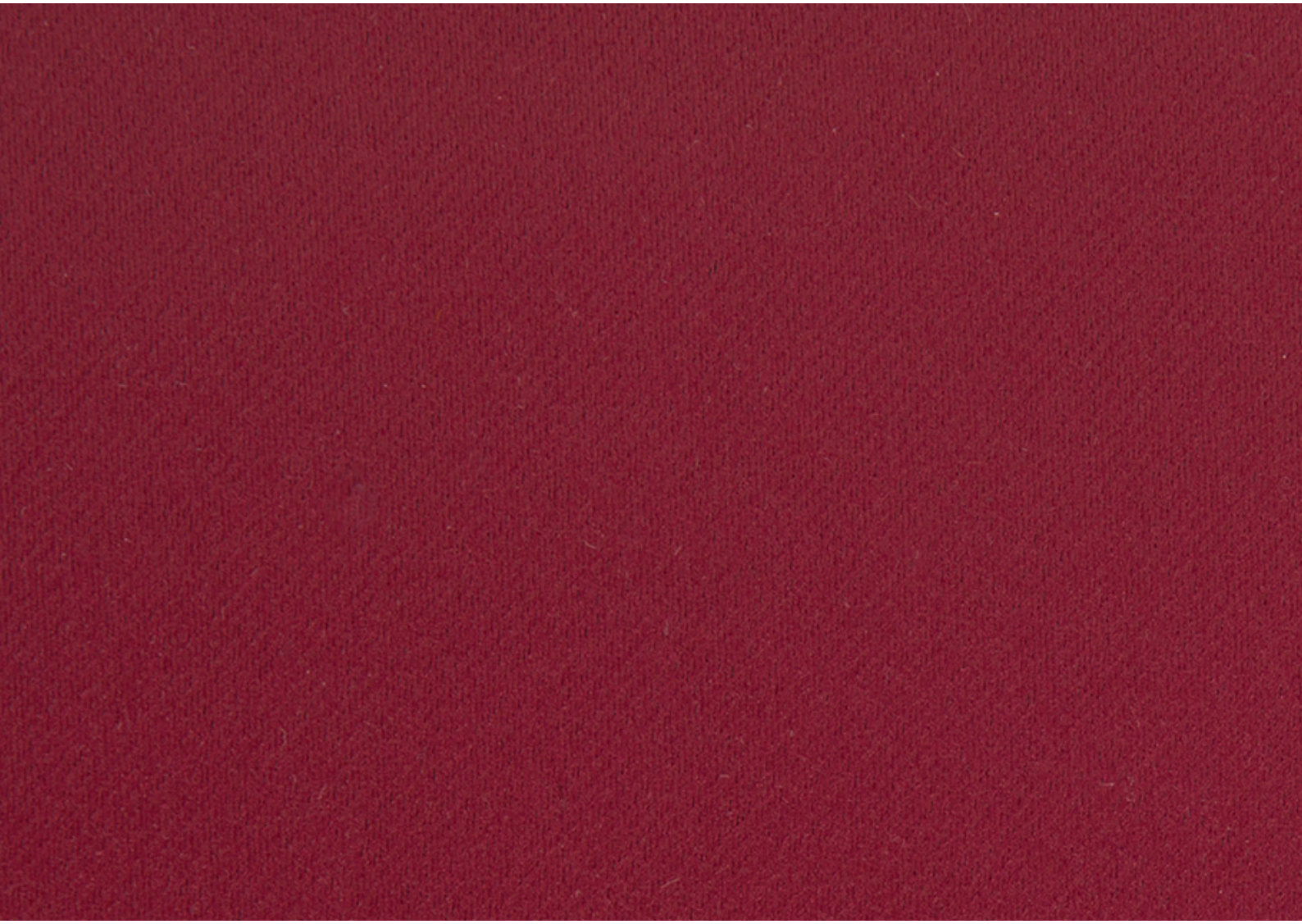
Mercury

Perfect For: Masking • Decorative/Scenic • Film & TV • Stage • Lining



J&C Joel

the inspiration behind the performance

Contents

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TECHNICAL

NDFR
Non Durably Flame Retardant
chemically treated with a water solution and if wetted in any way should be retreated

DFR
Durably Flame Retardant
chemically treated to withstand a number of cleanings

IFR
Inherently Flame Retardant
woven from fibres with a high flame retardancy

FR
Flame Retardant
chemically treated to an individual specification

NOT FR
Not Flame Retardant no flame retardant treatment

Confirmation that the fabric meets one or more flame retardant standards

BS5867 BS5867 Pt2 B is the British Standard for flame retardant fabrics used for curtains and drapes

BS5852 BS5852 Pt1 is the British Standard for flammability of upholstered composites for seating

BS4790 BS4790: 1987 Determination of the effects of a small source of ignition on textile floor coverings hot metal nut method (method 1, loose laid)

EN13773: 2003 Meets European fire safety standards for vertically hung fabrics. Burning behavior, ignitability testing of curtain fabric for use in the contract market.

TL 1080-0002/8 German Military Specification for horizontally tested materials

EN14041 Details the requirement for CE Marking of textiles, laminate and resilient floor coverings

BS7905-1:2001 Lifting equipment for performance, broadcast and similar applications.

ATTRIBUTES

Approx roll length of material in linear metres (m) & feet (ft)

Approx width of material in centimetres (cm) & inches (")

Approx weight in grams per metre squared (g/m^2)

Approx thickness in (mm)

M1, M2, M4 Conforms to French Fire Regulations

B1, B2 Conforms to German Fire Regulations DIN 4102

IMO Conforms to International Maritime Organisation regulations

Classe Uno Meets Italian Fire Regulations

BS EN13501-1 Fire Classification of construction, products and building elements. Classification using test data from reaction to fire tests

CFC EN ISO 9239-1 Reaction to fire test. Horizontal surface spread of flame on floor covering system. Determination of the burning behaviour using a retardant heat source

NFPA 701 NFPA 701: (USA) Standard Methods of Fire Tests for Flame Propagation of Textiles and Films

EN9239-1 Reaction to fire tests – horizontal surface spread of flame on floor covering systems

DIN EN1021 Meets European fire safety standards for exposure to different ignition sources, namely a lit cigarette and butane flame. Assessment of the ignitability of upholstered furniture

Datasheet - Fabrics & Flooring

Mercury 3.0

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To ensure you get the best from the product supplied to you, we advise you follow the care instructions within this datasheet.

Fabric	**Flame Retardancy**	IFR
	Fire Certification	BS5867, M1, B1, EN13773, Classe Uno, NFPA 701, IMO
	Brand Name (and Manufacturer)	J&C Joel Ltd.
	Material (Blending Ratio)	100% Polyester
	Construction of Fabric	Plain Weave
Chemicals	**Surface Treatments**	None
	Brand Name of Flame Retardant Chemicals	N/A
	Chemical name of Flame Retardant Chemicals	N/A
	Process of Flame Retardant Chemicals	N/A
Care	**Information**	Inherently Flame Retardant to BS5867 Part 2 Type B, M1, B1, EN13773, Classe Uno, NFPA 701 and IMO. This means that the man-made fibres are flame retardant for life and if wet, would not need to be re-flameproofed. Therefore, the cloth will withstand wet cleaning but we would advise and suggest professional dry cleaning only, using the correct chemical process. Notwithstanding the aforementioned, it would be our advice to only dry clean this material periodically. We would suggest that the curtain be soft-brushed on a regular basis and periodically cleaned using a vacuum and drapery attachment. This fabric is not pre-shrunk.
	Laundering Treatment	 Sensitive Dry Cleaning · Do Not Wash · Do Not Bleach · Do Not Iron · Do Not Tumble Dry
Notes		

Fire Rating:	Approx Roll Length:	Width:	Weight:	Fire Certification:	Colours Available
IFR	30m / 98ft	300cm / 118”	255 g/m²	BS5867, M1, B1, EN13773, Classe Uno, NFPA 701, IMO	

For further information please contact our sales team **sales@jcjoel.com**

BTTG
TESTING • CERTIFICATION • AUDITING

Wira House, West Park Ring Road,
Leeds, LS16 6QL, UK.
Telephone: +44 (0)113 259 1999
Email: info@bttg.co.uk
Website: www.bttg.co.uk

Date: 15 August 2017

Our Ref: **53651-29**
Your Ref: -

Client:	J. & C. Joel Limited Corporation Mill Corporation Street Sowerby Bridge Halifax HX6 2QQ
Job Title:	Surface Ignition Of Curtains & Drapes
Client's Order No:	-
Date of Receipt:	16 June 2017
Date of Test Start:	29 June 2017
Description of Sample(s):	One sample identified as follows was received for testing: Mercury, stated to be IFR
Work Requested:	We were asked to make the following test: BS 5867: Part 2: 2008 (2015): Type B Curtains, Drapes and Blinds

ilac-MRA UKAS TESTING 1066

Wira House, West Park Ring Road,
Leeds, LS16 6QL, UK.
Telephone: +44 (0)113 259 1999
Email: info@bttg.co.uk
Website: www.bttg.co.uk

Date: 15 August 2017

Our Ref: **53651-29**
Your Ref: -

J. & C. Joel Limited

Sample was identified as follows:

Mercury, stated to be IFR

BS 5867: Part 2: 2008 (2015): Type B Curtains, Drapes and Blinds
Testing as received.

Three specimens from both length and width were tested in accordance with BS EN ISO 15025: Procedure A (surface ignition): 2002. The sample was tested at 20 °C and 60 % relative humidity (R.H.).

Each specimen was subjected to an applied flame using propane and a 15 second flame application time. The results obtained (shown in the table below) were assessed according to the requirements of BS 5867: Part 2: 2008 (2015).

Pre-treatment
If the fabric is a pass in the `as received` condition then the fabric is subjected a water soak procedure as specified in BS EN 1021: Annex D: 2006.

Testing after pre-treatment
Three specimens, after pre-treatment, from both length and width were tested following the procedure described above.

Test results relate only to the sample tested.

The results for all tests are given in the table(s) on the following page(s).

Reported by:.....
J Coleman
Fire Technician

Countersigned By:.....
P Doherty
Operational Head

Enquiries concerning this report should be addressed to Customer Services.

1066

Wira House, West Park Ring Road,
Leeds, LS16 6QL, UK.
Telephone: +44 (0)113 259 1999
Email: info@bttg.co.uk
Website: www.bttg.co.uk

Date: 15 August 2017

Our Ref: **53651-29**
Your Ref: -

J. & C. Joel Limited

RESULTS

Sample Ref: Mercury, stated to be IFR

BS 5867: Part 2: 2008 (2015): Type B Curtains, Drapes and Blinds
Testing as Received

	Length			Width		
Specimen No.	**1**	**2**	**3**	**4**	**5**	**6**
Flame reached an edge	No	No	No	No	No	No
Hole reached an edge	No	No	No	No	No	No
Flaming debris separated	No	No	No	No	No	No

Requirements
Any "Yes" means fail except if only one specimen fails a further 6 specimens are tested, if the second 6 specimens all pass the result is a pass.

Result in `as received`: Pass

Testing after pre-treatment

	Length			Width		
Specimen No.	**1**	**2**	**3**	**4**	**5**	**6**
Flame reached an edge	No	No	No	No	No	No
Hole reached an edge	No	No	No	No	No	No
Flaming debris separated	No	No	No	No	No	No

Requirements
Any "Yes" means fail except if only one specimen fails a further 6 specimens are tested, if the second 6 specimens all pass the result is a pass.

Result in `after pre-treatment`: Pass

1066

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Email: info@bttg.co.uk
Website: www.bttg.co.uk

Date: 15 August 2017

Our Ref: **53651-29**
Your Ref: -

J. & C. Joel Limited

Conclusion
The fabric meets the Type B performance requirements of BS 5867: Part 2: 2008 (2015).

This material should be identified with the manufacturers name, trademark or other identifying mark, the statement `Flammability complies with the requirements of BS 5867: Part 2: Type B and instructions of any special precautions to be taken concerning care (including cleansing) of the curtain, drape or window blind to be manufactured from the fabric, preferably using an appropriate care labelling symbol in accordance with BS EN 23758 and taking account of the pre-treatment using in this test and the requirements of Clause 4 of BS 5867: Part 2: 2008 (2015). If the fabric is unsuitable for cleansing, this shall be stated.

Uncertainty Budget
There is no uncertainty budget associated with BS 5867: Part 2: Type B as no measurements are determined, the pass/fail criteria is assessed visually.

ilac-MRA UKAS TESTING 1066

Fire Test Certificate – Specimen

Fabric: Mercury
Type: BS5867 Part 2 Type C

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West Yorkshire Materials Testing Service
Nepshaw Lane South, Morley, Leeds, LS27 7JQ
Materials Testing Manager: D. J. Brockbank
t: 0113 393 9791
e: dale.brockbank@wyjs.org.uk
www.wyjs.org.uk/materialstesting

TEST REPORT

Entry No:	76542
Date received:	17/06/2016
Client's Description:	Sample of fabric: Venus
Test Required:	Flammability BS 5867-2: Type C
Pre-treatment:	Tests were made both before and after 50 Washes in accordance with BS EN ISO 10528: 1995 standard wash procedure (Type A) at 75 Degrees C followed by line and press drying.
Conditioning:	A minimum of 24 hours at 65+/-5% Relative Humidity, 20+/-2°C
Date Tests Completed:	13/07/2016
Method of Test:	BS EN ISO 15025 : 2002 Procedure A (surface ignition)

The results may not apply to situations where there is restricted air supply or prolonged exposure to large sources of intense heat as in a conflagration.

Flame application times 5, 15, 20 and 30 seconds using propane gas

As Received

Both Face and back tested	**Fabric Length direction**		**Fabric Width direction**	
Specimen number	**Face 1 ↑**	**Back 2 ↓**	**Face 3 →**	**Back 4 ←**
Flame reached an edge (✓ or X)	**X**	**X**	**X**	**X**
Hole reached an edge (✓ or X)	**X**	**X**	**X**	**X**
Flaming debris (✓or X)	**X**	**X**	**X**	**X**
Duration of flaming (s)	0	0	0	0
Duration of afterglow (s)	0	0	0	0

----------End of Page----------

This is hereby certified to be a correct return of the tests made of the items referred to herein

Dale Brockbank
Materials Testing Manager
13 July 2016

- Unless instructed otherwise by the client sample remnants will be disposed of after 28 days.
- Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.
- Uncertainty budgets for test methods contained within this report are available on request.

This Certificate relates only to the sample received and, unless that sample has been drawn by the staff of this laboratory, or its agent, and endorsed accordingly, any application of the result to a bulk quantity or other material is entirely the responsibility of the client.

ilac-MRA UKAS TESTING 1104

West Yorkshire Joint Services

West Yorkshire Materials Testing Service

Entry No: 76542

The results may not apply to situations where there is restricted air supply or prolonged exposure to large sources of intense heat as in a conflagration.

Flame application times 5, 15, 20 and 30 seconds using propane gas

After Washing

Both Face and back tested	Fabric Length direction		Fabric Width direction	
Specimen number	Face 1 ↑	Back 2 ↓	Face 3 →	Back 4 ←
Flame reached an edge (✓ or X)	X	X	X	X
Hole reached an edge (✓ or X)	X	X	X	X
Flaming debris (✓or X)	X	X	X	X
Duration of flaming (s)	0	0	0	0
Duration of afterglow (s)	0	0	0	0

Comments

On the basis of the tests carried out this sample of fabric meets the Type C requirements of BS 5867-2: 2008.

----------End of Document----------

LNE
Le progrès, une passion à partager
LABORATOIRE DE TRAPPES
29 avenue Roger Hennequin – 78197 Trappes Cedex
Tél. : 01 30 69 10 00 – Fax : 01 30 69 12 34

PROCES-VERBAL DE CLASSEMENT

DE REACTION AU FEU D'UN MATERIAU

prévu à l'article 5 de l'arrêté du 21 novembre 2002

VALABLE 5 ANS à compter du 13 janvier 2017

N° P164897 - DE/1

et annexe de 5 pages

Marque commerciale : 6904/6905 VENUS

Description sommaire :

Composition globale :	Tissu 100% polyester ignifugé dans la masse
Application :	Rideaux et tentures
Masse :	(250 ± 10%) g/m²
Epaisseur :	(0,543 ± 10%) mm
Coloris :	Vert

Rapport d'essais : N° P164897 - DE/1 du 13 janvier 2017

Nature des essais : Essai au bruleur électrique NF P 92-503 (décembre 1995), essai de propagation de flamme NF P 92-504 (décembre 1995), essai pour matériaux fusibles NF P 92-505 (décembre 1995).
Détermination du classement NF P 92-507 (Février 2004).

Classement : **M1**

Durabilité du classement (NF P 92-512 : 1986) : NON LIMITEE A PRIORI

Compte tenu des critères résultant des essais décrits dans le rapport d'essai **N° P164897 - DE/1** annexé.

Ce procès verbal atteste uniquement des caractéristiques de l'échantillon soumis aux essais et ne préjuge pas des caractéristiques de produits similaires. Il ne constitue pas une certification de produits au sens de l'article L. 115-27 du code de la consommation et de la loi du 3 juin 1994.

Est seule autorisée la reproduction intégrale soit du présent Procès-verbal de classement qui comprend 1 page soit l'intégralité du Procès-Verbal et rapport annexé qui **comporte 6 pages**.

Trappes, le 13 janvier 2017

Laboratoire national de métrologie et d'essais – LNE

Le Responsable du Département
Comportement au Feu et Sécurité Incendie

Maxime MAJ

Accréditation
N° 1-0606
Portée disponible
sur www.cofrac.fr
cofrac
ESSAIS

RAPPORT D'ESSAI DE REACTION AU FEU D'UN MATERIAU

prévu à l'article 5 de l'arrêté du 21 novembre 2002

VALABLE 5 ANS à compter du 13 janvier 2017

N° P164897 - DE/1

1. BUT DES ESSAIS

Les essais auxquels se rapporte ce rapport d'essai ont pour but de déterminer le classement des matériaux, conformément aux prescriptions de l'Arrêté du ministère de l'Intérieur en date du 21 novembre 2002 relatif à leur réaction au feu.

2. PROVENANCE ET CARACTERISTIQUES DES ECHANTILLONS

Date et référence de la commande	:	Cde n° P17888 du 6/12/2016 selon devis n° 2016/20303
Marque commerciale et référence	:	6904/6905 VENUS
Composition globale	:	Tissu 100% polyester ignifugé dans la masse
Caractéristiques attestées par le demandeur	:	
Masse	:	(255 ± 5%) g/m²
Epaisseur	:	Non renseigné
Coloris	:	Vert
Caractéristiques déterminées par le LNE	:	
Masse	:	(250 ± 10 %) g/m²
Epaisseur	:	(0,543 ± 10 %) mm
Coloris	:	Vert

suite du rapport page suivante

LNE

3. MODALITES DES ESSAIS

Date de réception des éprouvettes : 16/12/2016

Conditionnement des éprouvettes préalablement aux essais :

Les éprouvettes, éventuellement placées sur leurs subjectiles, sont conditionnées avant essai dans une atmosphère à (23 ± 2) °C et (50 ± 5) % d'humidité relative pendant sept jours ou jusqu'à obtention de la masse constante (cas des matériaux livrés humides, ou de forte épaisseur).
La masse est considérée constante quand deux pesées successives à 24 h d'intervalle ne diffèrent pas de plus de 0,1 % ou de 0,1 g (on prendra la plus grande valeur de masse).

Date de réalisation des essais : 09/01/2017

4. RESULTATS

4.1. ESSAI AU BRULEUR ELECTRIQUE

4.1.1. DETERMINATION DU MODE LE PLUS DEFAVORABLE

	Eprouvette 1	Eprouvette 2	Eprouvette 3	Eprouvette 4
Sens	Chaîne Endroit	Chaîne Envers	Trame Endroit	Trame Envers
Coloris	Vert	Vert	Vert	Vert
Percement	Oui	Oui	Oui	Oui
Moment d'inflammation (s)	–	–	–	–
Durée d'inflammation après retrait de la flamme pilote (s)	–	–	–	–
Propagation de points en ignition hors de la zone déjà carbonisée	–	–	–	–
Chute de gouttes ou de débris enflammés	Non	Non	Non	Non
Fluage, chute de gouttes non enflammées	Oui	Oui	Oui	Oui
Longueur détruite/brûlée (mm)	185	205	195	200

suite du rapport page suivante

4.1.2. POURSUITE DES ESSAIS AVEC LA CONFIGURATION LA PLUS DEFAVORABLE

	Eprouvette 5	Eprouvette 6	Eprouvette 7	Eprouvette 8	
Sens	Chaîne Envers	Chaîne Envers	Chaîne Envers	Chaîne Envers	
Coloris	Vert	Vert	Vert	Vert	
Percement	Oui	Oui	Oui	Oui	
Moment d'inflammation (s)	– – – –	– – – –	– – – –	– – – –	
Durée d'inflammation après retrait de la flamme pilote (s)	– – – –	– – – –	– – – –	– – – –	
Propagation de points en ignition hors de la zone déjà carbonisée	–	–	–	–	
Chute de gouttes ou de débris enflammés	Non	Non	Non	Non	
Chute de gouttes non enflammées	Oui	Oui	Oui	Oui	
Longueur détruite/brûlée (mm)	205	210	195	200	Longueur moyenne 203

Durée d'inflammation ≤ 5s	Oui
Longeur moyenne < 350 mm	Oui
Chute de gouttes enflammées	Non

4.2. ESSAI DE PROPAGATION DE FLAMME

4.2.1. DETERMINATION DU MODE LE PLUS DEFAVORABLE

	Eprouvette 1	Eprouvette 2	Eprouvette 3	Eprouvette 4
Coloris	Chaîne Endroit Vert	Chaîne Envers Vert	Trame Endroit Vert	Trame Envers Vert
Persistance de flamme après le retrait du brûleur ISO 6940	Non	Non	Non	Non
Durée de persistance de flamme maximale inférieure ou égale à 2s pour le matériau	Oui			
Durée de persistance de flamme maximale inférieure ou égale à 5s pour le matériau	Oui			
Chute de gouttes non enflammées	Non	Non	Non	Non
Chute de gouttes enflammées	Non	Non	Non	Non

suite du rapport page suivante

4.2.2 POURSUITE DES ESSAIS AVEC LA CONFIGURATION LA PLUS DEFAVORABLE

	Eprouvette 5	Eprouvette 6	Eprouvette 7	Eprouvette 8
Coloris	Chaine Endroit Vert	Chaine Endroit Vert	Chaine Endroit Vert	Chaine Endroit Vert
Persistance de flamme après le retrait du brûleur ISO 6940	Non	Non	Non	Non
Durée de persistance de flamme maximale inférieure ou égale à 2s pour le matériau	Oui			
Durée de persistance de flamme maximale inférieure ou égale à 5s pour le matériau	Oui			
Chute de gouttes non enflammées	Non	Non	Non	Non
Chute de gouttes enflammées	Non	Non	Non	Non

4.3. ESSAI DE FUSIBILITE

	Eprouvette 1	Eprouvette 2	Eprouvette 3	Eprouvette 4
Coloris	Vert	Vert	Vert	Vert
Chute de gouttes non enflammées	Oui	Oui	Oui	Oui
Chute de gouttes enflammées	Non	Non	Non	Non
Inflammation de la ouate	Non	Non	Non	Non

suite du rapport page suivante

5. OBSERVATIONS CONCERNANT LES ESSAIS

NEANT

6. CONCLUSION ET CLASSEMENT

A la suite de ces résultats d'essais, le matériau présenté ayant les caractéristiques décrites en première page de ce rapport d'essais obtient le classement :

M1

Pour déterminer le classement, il n'a pas été tenu compte de l'incertitude associée au résultat.

7. DURABILITE DU CLASSEMENT

NON LIMITEE A PRIORI

Trappes, le 13 janvier 2017

Laboratoire national de métrologie et d'essais LNE

Le Responsable du Département Comportement au Feu et Sécurité Incendie

Maxime MAJ

Les résultats mentionnés ne sont applicables qu'aux échantillons, aux produits ou matériels soumis au LNE et tels qu'ils sont définis dans le présent document

Prüfinstitut Hoch
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D-97650 Fladungen
Tel.: int – 49 – 9778-7480-200
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www.reaction-to-fire.de

Hoch Fladungen

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-161060

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

description of samples	beige fabric of polyester with a black middle layer
name of the material	**„6904 Venus"**
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	30.09.2021
result	**The examined product meets the requirements of class B1 for hardly flammable ("schwerentflammbare") building materials according to DIN 4102, pt. 1 (May 1998), suspended freely or with distance of >40 mm to same or other plain materials.**

This test report includes 5 pages and 3 enclosures.

Remark: If the building material mentioned above is not used as a 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 as defined by 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 as defined by State Building Prescriptions. This has to be certified instead 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 irregular building products for the required proofs of applicability.

Without written consent of the test laboratory, this test report may only be published or duplicated during its denoted period of validity, providing that no changes to appearance or content are made.

Hoch Fladungen
Prüfinstitut Hoch
Lerchenweg 1
D-97650 Fladungen

1. **Description of test material in condition as delivered**

PN 24249 „6904 Venus"

beige fabric consisting of 100% polyester with a black middle layer
Side A and side B are equal

characteristic values determined by the test laboratory:
area weight: about 248 g/m² thickness: about 0,5 mm

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

2. **Preparation of samples**

Samples with a size of 1000 mm height and 190 mm width where cut from the material for fire testing.

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

3. **Arrangement of samples**

mounting: freely suspended
#8346: PN 24249 flaming side A in warp direction
#8347: PN 24249 flaming side B in weft direction

4. **Date of test** CW 40 in 2016

Hoch Fladungen
Prüfinstitut Hoch
Lerchenweg 1
D-97650 Fladungen

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

line no.	Measurement	Result with the tested specimen				Dim.
	Test number	#8346	#8347	---	---	--
	flaming direction	warp	weft	---	---	--
	side	A	B	---	---	--
1	Number of specimen arrangement acc. to. DIN 4102/T15, schedule 1	1	1	---	---	--
2	Maximum flame height above bottom edge of specimen	40	50			cm
3	Time [1]	0:07	0:05	---	---	min:s
4	Burn-through / melting Time [1]	./.	./.	---	---	min:s
5	Observations on the back side of specimen Flames / Glowing Time [1]	./. ./.	./. ./.	--- ---	--- ---	min:s
6	Change of colour Time [1]	./. ./.	./. ./.	--- ---	--- ---	min:s
7	Falling of burning droplets Start [1]	./.	./.	---	---	min:s
8	Extent sporadic falling of burning droplets [2]	./.	./.	---	---	
9	continuous falling of burning droplets [2]	./.	./.	---	---	min:s
10	Falling of burning parts Start [1]	./.	./.	---	---	min:s
11	Extent sporadic falling of burning parts [2]	./.	./.	---	---	
12	continuous falling of burning parts [2]	./.	./.	---	---	
13	Burning duration at sieve plate (max.)	./.	./.	---	---	min:s
14	Impairment of burner by dropping or falling material: Time [1]	./.	./.	---	---	min:s
15	Premature end of test Final occurrence of burning at the specimen [1]	./.	./.	---	---	min:s
16	Time of eventually end of test [1]	./.	./.	---	---	min:s
17	Afterburning after end of test Time [1]	./.	./.	---	---	min:s
18	Number of specimen	./.	./.	---	---	
19	Front side of specimen [2]	./.	./.	---	---	
20	Rear side of specimen [2]	./.	./.	---	---	
21	flame length	./.	./.	---	---	cm
22	Afterglow after end of test Time [1]	./. ./.	./. ./.	--- ---	--- ---	min:s
23	Number of specimen	./.	./.	---	---	
24	Place of appearance Lower half of the specimen [2]	./. ./.	./. ./.	--- ---	--- ---	
25	Upper half of the specimen [2]	./.	./.	---	---	
26	Front side of specimen [2]	./.	./.	---	---	
27	Rear side of specimen [2]	./.	./.	---	---	

P06-04-FB05 eng Rev04

Hoch Fladungen
Prüfinstitut Hoch
Lerchenweg 1
D-97650 Fladungen

line no.	Measurement	Result with the tested specimen				Dim.
	Test number	#8346	#8347	---	---	--
	flaming direction	warp	weft	---	---	--
	side	A	B	---	---	--
	Density of smoke					
28	≤ 400 % * min	2	1	---	---	% * min
29	> 400 % * min[4)]	./.	./.	---	---	% * min
30	Diagram in enclosure no.	1	2	---	---	
	Residual lengths: individual values[3)]					
31	Specimen 1	59	66	---	---	cm
	Specimen 2	65	64	---	---	cm
	Specimen 3	64	64	---	---	cm
	Specimen 4	61	62	---	---	cm
32	Average residual length[3)]	**62**	**64**	**---**	**---**	
33	Photo of specimen in enclosure no.	1	2	---	---	
34	Flue gas temperature					
	Maximum of average values	121	120	---	---	°C
35	Time [1)]	9:36	10:00	---	---	min:s
36	Diagram in enclosure no.	1	2	---	---	
37	Remarks: - none -					

[1)] indication of times relative to beginning of test
[2)] checked if applicable
[3)] indication of carrier/foam layer separated in case of fire-proofing agents
[4)] very strong development of smoke

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6. Explanations concerning the testing procedure

The remaining tests could be skipped as the residual lengths exceeded 45 cm.

7. Summary of results and additional establishments to Fire Behaviour

lineno.	Measurement test-no.	Result with the tested specimen #8346 warp direction side A	#8347 weft direction side B	---	---	dimension
1	residual length	**62**	**64**	---	---	cm
2	max. smoke temperature	**121**	**120**	---	---	°C
3	integral of smoke density	**2**	**1**	---	---	%min
4	remarks: none					

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

After performing additional tests in the ignitability apparatus, this could be verified (encl. 3).

8. Special remarks

- This report is only valid for the material as described in paragraph 1. In combination with other materials or with additional coatings or primers etc., the burning behaviour may differ.
- This test report is not valid for the exposure to outdoor climate conditions, washing or cleaning with chemicals.
- This test report is not valid if the material is used as a building product in the sense of the State Building Regulations ("Landesbauordnungen", 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, in particular private proprietary rights.
- For legal interests, only the German original version is relevant.
- In General Building Inspectorates procedures, this test report can be used 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 denoted date on page 1. The test report becomes invalid in case the standards on which these tests are based are changed.

Fladungen, 10.10.2016

Clerk in charge:

(Dipl.-Ing. (FH) Jürgen Hammer)

ANERKANNTE PRÜF-, ÜBERWACHUNGS- UND ZERTIFIZIERUNGSSTELLE Hoch Fladungen

Head of test laboratory:

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

Fire Test Certificate – Specimen

Fabric: Mercury
Type: B1

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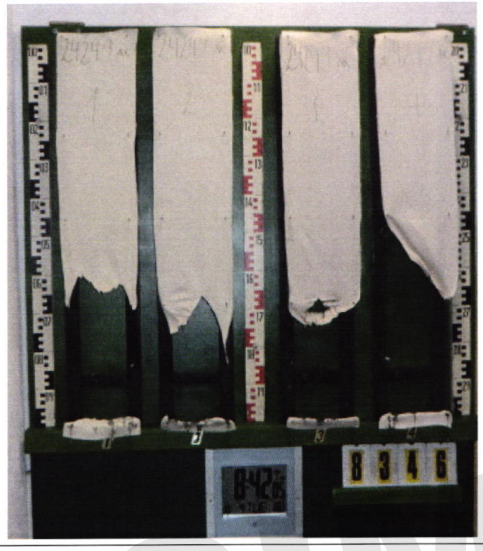
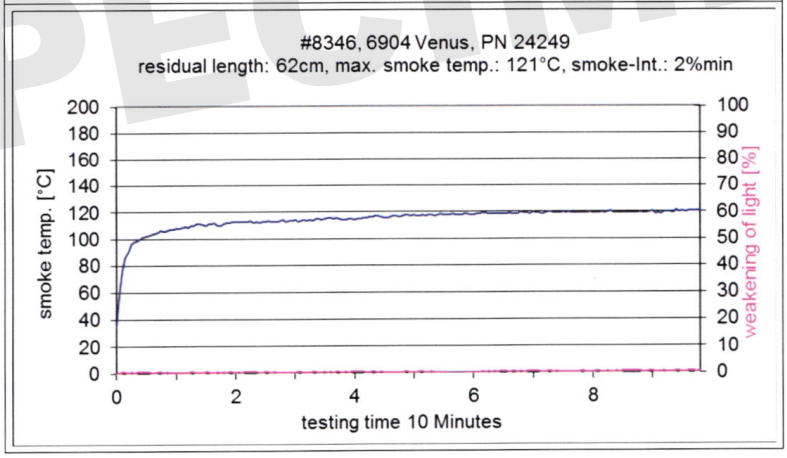
Prüfinstitut Hoch
Lerchenweg 1
D-97650 Fladungen

enclosure 1 test report
PZ-Hoch-161060

Fire shaft test #8346



measurement



Fire Test Certificate – Specimen

Fabric: Mercury
Type: B1

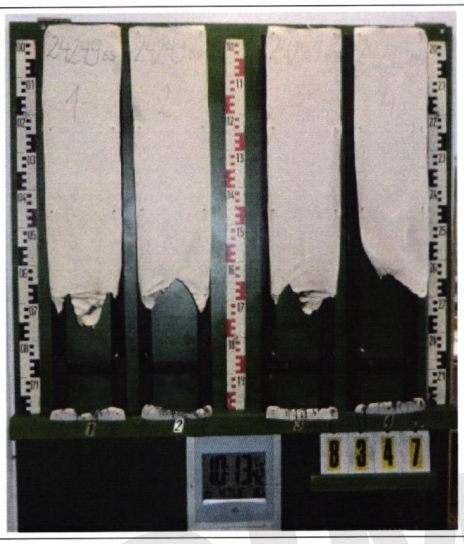
J&C Joel
the inspiration behind the performance

Hoch Fladungen

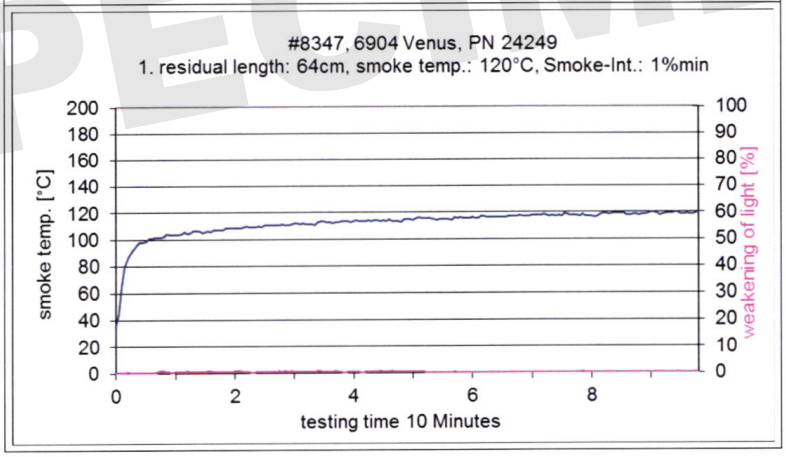
Prüfinstitut Hoch
Lerchenweg 1
D-97650 Fladungen

enclosure 2 test report
PZ-Hoch-161060

Fire shaft test #8347



measurement



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Lerchenweg 1
D-97650 Fladungen

enclosure 3 test report
PZ-Hoch-161060

Test for normal flammability

classifying B2 according to DIN 4102

1. Description of test material in condition as delivered cf. page 2
2. Preparation of samples

   Samples for the ignitability apparatus were cut from the sample.

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

3. Arrangement of samples:
   - freely suspended
   - Flaming side A and side B in warp and in weft direction
4. Date of test CW 39 in 2016
5. Results

PN 24249	**edge-test**								**surface-test**				Dimension
no backing	tested freely suspended												
samples no.	1	2	3	4	5	6	7	8	1	2	3	4	
Side	AK	AS	BS	BK	BK	BK	BK	BK	AK	BK	AS	BS	--
ignition[1)]	1	1	1	1	1	1	1	1	2	2	2	2	s
measurement mark reached[1)2)]	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	s
maximum flame height	**3**	**4**	**4**	**5**	**4**	**4**	**6**	**6**	**3**	**3**	**3**	**3**	cm
time of max. flame height	5	5	6	12	5	4	16	11	3	6	5	4	s
Self-cessation of flames end of afterburning[1)]	7	6	7	27	6	7	24	13	5	9	7	6	s
start of the smouldering[1)]	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	s
end of the smouldering[1)]	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	s
flames were extinguished after[1)]	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	s
smoke development (visually)	moderate								moderate				--
dropping of burning material within 20 sec.[1)2)]	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	-/-	s
Appearance after test: burned out till max. width 5 cm x height 7 cm													

[1)] time denoted relative to beginning of test
A = front side

[2)] during 20 Sec
B = backside

-/- no occurrence
K = warp

-- no information
S = weft

6. Remarks and explanations to the testing procedure - none –
7. Opinion concerning the dropping of burning material

   The test for normal flammability shows no dropping burning material.

ISO 17025
BELAC
056-TEST

Your notice of	Your reference	Date
16-07-2015	3469 - 3472	14-08-2015

Analysis Report 15.03466.03

Required tests :

EN 13773 (2003)

Identification number	Information given by the client	Date of receipt
T1512900		23-07-2015

Nathan De Kock

Order responsible

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.

VAT BE 0459.218.289 **Fin. Acc. 210-0472965-45** **IBAN BE44 2100 4729 6545**

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CENTEXBEL-VERVIERS
Avenue du Parc 38
BE-4650 Herve (Chaineux)
Tel. + 32 87 32 24 30 Fax + 32 87 34 05 18
chaineux@centexbel.be

Reference: **T1512900 - BATCH P1484703**

Textiles – Burning behaviour – Curtains and drapes - Textile fabrics - Determination of the ignitability of vertically oriented specimens.

Date of ending the test	28-07-2015
Standard used	EN 1101 (1995) + A1 (2005)
Product standard	EN 13773 (2003)
Deviation from the standard	-
Conditioning	20°C, relative humidity 65%
Ignition	Bottom edge

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

Length

Flame application time (s)	Cases of ignition	Cases of non-ignition
1	0	1
2	0	1
3	0	1
4	0	1
5	0	1
10	0	1
15	0	1
20	0	5

The mean of the recorded times at which ignition was observed is calculated
No ignition within 20 s

Width

Flame application time (s)	Cases of ignition	Cases of non-ignition
1	0	1
2	0	1
3	0	1
4	0	1
5	0	1
10	0	1
15	0	1
20	0	5

The mean of the recorded times at which ignition was observed is calculated
No ignition within 20 s

Performed under accreditation in the fire lab under the responsibility of Nathan De Kock

Reference: **T1512900 - BATCH P1484703**

Textiles and textile products – Burning behaviour – Curtains and drapes. Measurement of flame spread of vertically oriented specimens with large ignition source.

Date of ending the test	29-07-2015
Standard used	EN 13772 (2011)
Product standard	EN 13773 (2003)
Deviation from the standard	-
Conditioning	20°C, relative humidity 65%

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

Length

	Face A	Face B	Face A	Face A
Severance 220 mm thread	no	no	no	no
Severance 370 mm thread	no	no	no	no
Severance 520 mm thread	no	no	no	no
Time to sever 520 mm thread (s)	/	/	/	/
Destroyed length (mm)	130	125	125	130
Flaming debris	no	no	no	no

Width

	Face A	Face B	Face B	Face B
Severance 220 mm thread	no	no	no	no
Severance 370 mm thread	no	no	no	no
Severance 520 mm thread	no	no	no	no
Time to sever 520 mm thread (s)	/	/	/	/
Destroyed length (mm)	125	130	125	135
Flaming debris	no	no	no	no

Classification in accordance with EN 13773 Class 1

Performed under accreditation in the fire lab under the responsibility of Nathan De Kock

Reference: **T1512900 - BATCH P1484703**

Washing and drying

Date of ending the test	11-08-2015
Standard used	ISO 6330 (2000) + A1 (2008), ISO 6330 (2012)
Deviation from the standard	-
Apparatus	Wascator FOM 71 (type A)
Used detergent	ECE detergent (Type 3)
Washing method and temperature	5A- 40°C (2000)
Drying method	A = Line dry (2000)
Number of washing cycles	12
Mass of the test specimens	500 g

Sample generated: T1512900_01d

Performed under accreditation in the physical lab Ghent under the responsibility of Filip Ghekiere

Reference: T1512900_01d - BATCH P1484703

Textiles – Burning behaviour – Curtains and drapes - Textile fabrics - Determination of the ignitability of vertically oriented specimens.

Date of ending the test	13-08-2015
Standard used	EN 1101 (1995) + A1 (2005)
Product standard	EN 13773 (2003)
Deviation from the standard	-
Conditioning	20°C, relative humidity 65%
Ignition	Bottom edge

The test specimens have been cleaned.

Length

Flame application time (s)	Cases of ignition	Cases of non-ignition
1	0	1
2	0	1
3	0	1
4	0	1
5	0	1
10	0	1
15	0	1
20	0	5

The mean of the recorded times at which ignition was observed is calculated
No ignition within 20 s

Width

Flame application time (s)	Cases of ignition	Cases of non-ignition
1	0	1
2	0	1
3	0	1
4	0	2
5	1	1
6	0	1
7	0	1
8	0	1
9	0	2
10	1	2
11	1	1
12	0	1
13	0	1
14	0	1
15	0	1
16	0	1
17	0	1
18	0	1
19	0	1
20	0	5

The mean of the recorded times at which ignition was observed is calculated

The test requires at least five instances of ignition and five instances of non-ignition. Because less than 5 instances of ignition have been measured, and taking into account §12 of ISO 6940, a 'non-ignition' for this test is recorded

Performed under accreditation in the fire lab under the responsibility of Nathan De Kock

Reference: **T1512900_01d - BATCH P1484703**

Textiles and textile products – Burning behaviour – Curtains and drapes. Measurement of flame spread of vertically oriented specimens with large ignition source.

Date of ending the test	13-08-2015
Standard used	EN 13772 (2011)
Product standard	EN 13773 (2003)
Deviation from the standard	-
Conditioning	20°C, relative humidity 65%

The test specimens have been cleaned.

Length

	Face A	Face B	Face A	Face A
Severance 220 mm thread	no	no	no	no
Severance 370 mm thread	no	no	no	no
Severance 520 mm thread	no	no	no	no
Time to sever 520 mm thread (s)	/	/	/	/
Destroyed length (mm)	145	130	135	130
Flaming debris	no	no	no	no

Width

	Face A	Face B	Face B	Face B
Severance 220 mm thread	no	no	no	no
Severance 370 mm thread	no	no	no	no
Severance 520 mm thread	no	no	no	no
Time to sever 520 mm thread (s)	/	/	/	/
Destroyed length (mm)	130	145	135	130
Flaming debris	no	no	no	no

Classification in accordance with EN 13773 Class 1

Performed under accreditation in the fire lab under the responsibility of Nathan De Kock

LAPI LABORATORIO PREVENZIONE INCENDI S.p.A.
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Telefono +39 0574.575.320 - Telefax +39 0574.575.325
Sede Secondaria: I-20081 CALENZANO (FI) - Via Petrarca, 48
e-mail: lapi@laboratoriolapi.it
web site: www.laboratoriolapi.it

CERTIFICATO DI REAZIONE AL FUOCO N. 6819

A) DENOMINAZIONE COMMERCIALE DEL MATERIALE:

VENUS

B) CODICE DI IDENTIFICAZIONE DEL MATERIALE: **L/6819/2014**

C) IMPIEGO: **TENDAGGI - SIPARI - DRAPPEGGI**

D) POSA IN OPERA: **SOSPESO, SUSCETTIBILE DI PRENDERE FUOCO SU AMBO LE FACCE**

In esito alle prove UNI 8456 (1987); UNI 9174 (1987) - UNI 9174/A1 (1996) di cui ai Decreti Ministeriali del 26.06.84 e del 03.09.01 e successive modifiche e integrazioni, relativamente ai campioni presentati, al materiale commercialmente denominato **VENUS** è attribuita, ai sensi del metodo di classificazione UNI 9177 (1987), la

CLASSE 1 (UNO)

di reazione al fuoco.

Costituiscono parte integrante del presente certificato n. **6** allegati.

IL DIRETTORE DEL LABORATORIO
Dr. Luca Ermini

Prato, 15.01.2014

Il presente certificato è valido unicamente per la campionatura sottoposta a prova.

Fire Test Certificate – Specimen

Fabric: Mercury
Type: NFPA 701

J&C Joel
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DIVERSIFIED
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"We Test Per Your Request"
336 WEST FRONT STREET
P.O. BOX 4004
BURLINGTON, NORTH CAROLINA 27215
PHONE (336) 227-7710 • FAX (336) 227-1175
www.diversifiedtestinglabs.com

May 27, 2021

Reference: Laboratory Test Report
Lab Identification No. 45854
Invoice No. 77111

One (1) fabric sample, identified as **6904/6905 VENUS,** 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, 2019 Edition, (Test 1)". The results are as follows:

Specimen Number	Test Results: Residual Flame (seconds)	Test Results: Weight Loss (percent)
1	0.0	17.32
2	0.0	15.93
3	0.0	14.95
4	0.0	19.73
5	0.0	16.31
6	0.0	14.74
7	0.0	21.97
8	0.0	14.41
9	0.0	19.55
10	0.0	20.71
AVG	0.0	17.56

The sample submitted **meets** the minimum requirements of the above standard. The average percent weight loss cannot exceed 40% and the weight loss of individual specimens cannot exceed mean value plus three standard deviations. The average residual flame cannot exceed 2.0 seconds.

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

Sincerely,

Brian S. Dement

BSD/mr

Fire Test Certificate – Specimen

Fabric: Mercury
Type: NFPA 701

J&C Joel
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PHONE (336) 227-7710 • FAX (336) 227-1175
www.diversifiedtestinglabs.com

May 27, 2021

Reference: Laboratory Test Report
Lab Identification No. 45854
Invoice No. 77111

One (1) fabric sample, identified as **6904/6905 VENUS,** was received and tested in accordance with the National Fire Prevention Association No. 701, "Standard Methods of Fire Tests for Flame Propagation of Textiles and Films, 2019 Edition, (Test 2, Folds Configuration)". The results are as follows:

Test Results

Specimen Number	After Flame (seconds)	Residual Flame (seconds)	Char Length (inches)
1	0.0	0.0	10.0
2	0.0	0.0	8.5
3	0.0	0.0	11.0
4	0.0	0.0	9.5

The fabric 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

DIVERSIFIED TESTING LABORATORIES, INC. SEAL 1975 NORTH CAROLINA

Fire Test Certificate – Specimen

Fabric: Mercury
Type: IMO

J&C Joel
the inspiration behind the performance

West Yorkshire Materials Testing Service
Nepshaw Lane South, Morley, Leeds, LS27 7JQ
Materials Testing Manager: D. J. Brockbank
t: 0113 393 9791
e: dbrockbank@wyjs.org.uk
www.wyjs.org.uk/materialstesting

TEST REPORT

Entry No: 80046-01
Date received: 12/10/2016
Client's Description: Sample of fabric: Venus
Test Required: Flammability in accordance with IMO 2010 FTP CODE ANNEX 1 PART 7
Pre-treatment: None
Conditioning: A minimum of 24 hours at 65+/-5% Relative Humidity, 20+/-5°C
Date Tests Completed: 14/10/2016

Flame application time: 15 seconds

Mode of Flame Application: Edge ignition

The results may not apply to situations where there is restricted air supply or prolonged exposure to large sources of intense heat as in a conflagration.

Face	Warp direction					Weft direction				
Specimen number	**1**	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
Flame reached an edge (✓or X)	X	X	X	X	X	X	X	X	X	X
Hole reached an edge (✓ or X)	X	X	X	X	X	X	X	X	X	X
Surface Flash (✓ or X)	X	X	X	X	X	X	X	X	X	X
Duration of flaming (s)	0	0	0	0	0	0	0	0	0	0
Length of Char (mm)	45	55	49	43	55	55	64	55	72	72
Ignition of Cotton wool (Y/N)	N	N	N	N	N	N	N	N	N	N

Mean Char Length: Warp = 49mm **Weft** = 64mm

Comments

On the basis of the tests carried out this sample of fabric meets the performance criteria for curtains and drapes as specified in Clause 3 of IMO 2010 FTP CODE ANNEX 1 PART 7.

----------End of Document----------

This is hereby certified to be a correct return of the tests made of the items referred to herein

Dale Brockbank
Materials Testing Manager
14 October 2016

- Unless instructed otherwise by the client sample remnants will be disposed of after 28 days.
- Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.
- Uncertainty budgets for test methods contained within this report are available on request.

This Certificate relates only to the sample received and, unless that sample has been drawn by the staff of this laboratory, or its agent, and endorsed accordingly, any application of the result to a bulk quantity or other material is entirely the responsibility of the client.

ilac-MRA UKAS TESTING 1104

West Yorkshire Joint Services

West Yorkshire Materials Testing Service

Entry No: 80046-01

ANNEX

type of the material, i.e. curtain, drape, etc	fabric
name and/or identification of the product tested	Venus
description of the sampling procedure, where relevant	Unknown
mass per unit area	Unknown
thickness	Unknown
colour and tone: if the product has a pattern, the representative colour shall be described	Cream
quantity and number of any coating	Unknown
method and quantity of fire retardant treatment	Unknown
materials of the product such as wool, nylon, polyester, etc., and its composite ratio	Polyester
composition of weave: such as plain, weave, twilled	Unknown
density (number/inch): the number of threads per inch in both warp and weft	Unknown
yarn number count	Unknown

----------End of Document----------

J&C Joel

the inspiration behind the performance

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