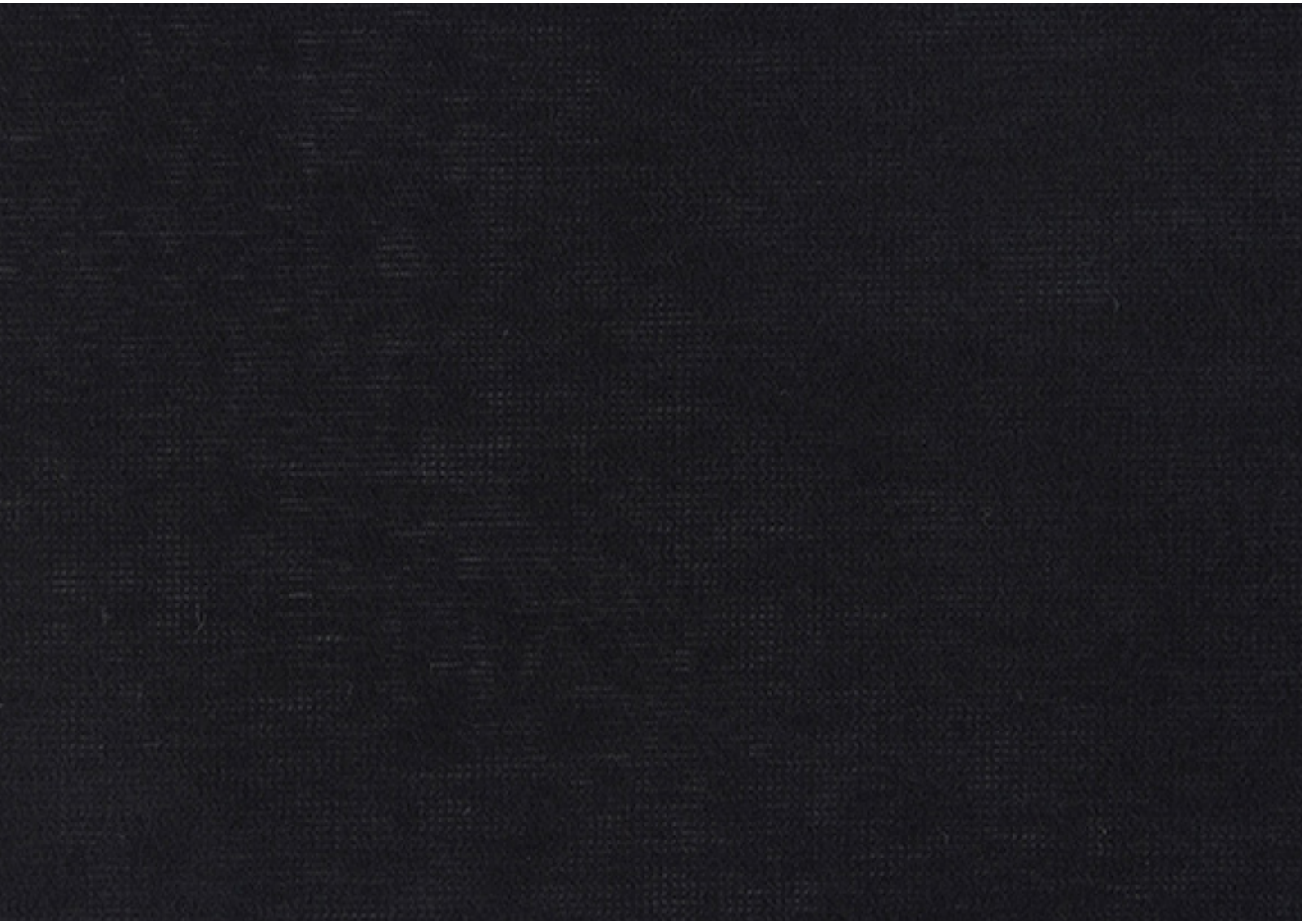
Acoustic Transparent

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



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

Acoustic Transparent

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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**	NDFR
	Fire Certification	BS5867, M1, B1, EN13773, EN13501-1
	Brand Name (and Manufacturer)	J&C Joel Ltd.
	Material (Blending Ratio)	100% Cotton
	Construction of Fabric	Plain Weave
Chemicals	**Surface Treatments**	Dyed - Flameproofed
	Brand Name of Flame Retardant Chemicals	KAPP-Chemie GMBH & Co K.G
	Chemical name of Flame Retardant Chemicals	Kappaflam
	Process of Flame Retardant Chemicals	Immersion
Care	**Information**	Non-Durably Flame Retardant. This means that the fabric is chemically treated and if wet (in any way) should be retreated to meet the flammability requirements of BS5867 Part 2 Type B, M1, B1, EN13773 and EN13501-1. Therefore, the cloth will not withstand wet cleaning and should be re-flame proofed whenever wet. The cloth can be professionally dry cleaned 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. Commercial flame retardants may alter the aesthetics, appearance, colour or performance of the textile material. This fabric is not pre-shrunk.
	Laundering Treatment	 Dry Clean Only · Do Not Wash · Do Not Bleach · Do Not Iron · Do Not Tumble Dry
Notes		

Fire Rating:	Approx Bale Length:	Width:	Weight:	Fire Certification:	Colour Available
NDFR	60m / 197ft	260cm / 102”	140 g/m²	BS5867, M1, B1, EN13773, EN13501-1	

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

Fire Test Certificate – Specimen

Fabric: Acoustic Transparent
Type: BS5867 Part 2 Type B

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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: 01 August 2017

Our Ref: **53519-33**
Your Ref: -

Client: J. & C. Joel Limited
Corporation Mill
Corporation Street
Sowerby Bridge
Halifax
HX6 2QQ

Job Title: Surface Ignition Of Curtains & Drapes (Type B)

Client's Order No: -

Date of Receipt: 19 May 2017
Date of Test Start: 08 June 2017

Description of Sample(s): One sample identified as follows was received for testing:

Acoustic Transparent, stated to be NDFR

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

Fire Test Certificate – Specimen

Fabric: Acoustic Transparent
Type: BS5867 Part 2 Type B

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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: 01 August 2017

Our Ref: **53519-33**
Your Ref: -

J. & C. Joel Limited

Sample was identified as follows:

Acoustic Transparent, stated to be NDFR

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

Pre-Treatment
No water treatment required as the sample was stated to be non durable flame retardant.

Conditioning
The test specimens were conditioned for at least 24 hours in the standard atmosphere of 60 ± 5 % relative humidity (R.H.) and 20 ± 2 °C.

Testing
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).

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

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: 01 August 2017

Our Ref: **53519-33**
Your Ref: -

J. & C. Joel Limited

RESULTS

Sample Ref: Acoustic Transparent, stated to be NDFR

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, it the second 6 specimens all pass the result is a pass.

Result: Pass

Conclusion
The fabric meets the Type B performance requirements of BS 5867: Part 2: 2008 – the fabric must be clearly labelled `If wetted in any way it is essential to re-treat the fabric to meet flammability requirements`.

The 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 used in this test and the requirements of Clause 4 of BS 5867: Part 2: 2008 (2011). 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

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ESSAIS

DIRECTION SECURITE, STRUCTURES ET FEU
Réaction au Feu

PROCES-VERBAL DE CLASSEMENT DE REACTION AU FEU D'UN MATERIAU

Selon l'arrêté du 21 novembre 2002 modifié relatif à la réaction au feu des produits de construction et d'aménagement
Laboratoire pilote agréé du Ministère de l'Intérieur (arrêté du 05/02/59 modifié)

N° RA14-0015A

Valable 5 ans à compter du 13 février 2014

Marque commerciale : Article 14/50 Velum
Article 24/28 Toile

Description sommaire :
Tissu uni à base de fibres 100 % coton, ignifugé par foulardage.

- Référence « Article 14/50 Velum » :
  Masse surfacique nominale : 75 g/m².
  Epaisseur nominale : 0,18 mm.
- Référence « Article 24/28 Toile » :
  Masse surfacique nominale : 200 g/m².
  Epaisseur nominale : 0,35 mm.

Coloris : divers.

Nature de l'essai : Essai au brûleur électrique

Classement : **M1**

Durabilité du classement (Annexe 2 – Paragraphe 5) : Non limitée (article non lavable, non nettoyable à sec et pour usage intérieur uniquement).
compte tenu des critères résultant des essais décrits dans le rapport d'essais N° RA14-0015A 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 donc pas une certification de produits au sens des articles L 115-27 à L 115-33 et R 115-1 à R 115-3 du code de la consommation.

Champs-sur-Marne, le 13 février 2014

Le Technicien
Responsable de l'essai

Olivier BRAULT

Le Chef du Laboratoire
Réaction au Feu

Nicolas ROURE

CENTRE SCIENTIFIQUE ET TECHNIQUE DU BATIMENT
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TÉL. (33) 01 64 68 84 12 | FAX. (33) 01 64 68 84 79 | www.cstb.fr
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ESSAIS

DIRECTION SECURITE, STRUCTURES ET FEU
Réaction au Feu

RAPPORT D'ESSAIS N° RA14-0015A DE REACTION AU FEU D'UN MATERIAU

Selon l'arrêté du 21 novembre 2002 modifié relatif à la réaction au feu des produits de construction et d'aménagement

Valable 5 ans

L'accréditation de la section Laboratoires du COFRAC atteste de la compétence des laboratoires pour les seuls essais couverts par l'accréditation.

Ce rapport d'essais atteste uniquement des caractéristiques de l'objet soumis aux essais et ne préjuge pas des caractéristiques de produits similaires. Il ne constitue pas une certification de produits au sens des articles L 115-27 à L 115-33 et R 115-1 à R 115-3 du code de la consommation.

En cas d'émission du présent rapport par voie électronique et/ou sur support physique électronique, seul le rapport sous forme de support papier signé par le CSTB fait foi en cas de litige. Ce rapport sous forme de support papier est conservé au CSTB pendant une durée minimale de 10 ans.

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Il comporte 7 pages.

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Rapport d'essais n°RA14-0015A

OBJET

Les essais rapportés par le présent document ont pour but de déterminer le comportement des matériaux, conformément aux essais prescrits par l'Arrêté Ministériel référencé ci-dessous, relatif à la réaction au feu des matériaux de construction et d'aménagement.

TEXTES DE REFERENCE

Arrêté du 21 novembre 2002 modifié.
Annexe 2 de l'arrêté du 21 novembre 2002 modifié.

NATURE DE (S) L'ESSAI (S)

Essai au brûleur électrique selon la norme NF P 92-503:1995.
Epreuves de vieillissement accéléré en chambres climatiques suivant l'arrêté du 21 novembre 2002 modifié.
Ces épreuves sont sous-traitées au CREPIM accrédité COFRAC.

DATE (S) D'ESSAI (S)

10 octobre 2013 avant l'épreuve de vieillissement accéléré en chambres climatiques.
24 janvier 2014 après l'épreuve de vieillissement accéléré en chambres climatiques.

PROVENANCE ET CARACTERISTIQUE DES ECHANTILLONS

Date de livraison : 20 septembre 2013

N° Identification : ES541130458

Marque (s) commerciale (s) : Article 14/50 Velum
Article 24/28 Toile

L'attention est attirée sur le fait que les résultats obtenus avec l'échantillon objet du présent rapport d'essais ne sont pas généralisables sans justification de la représentativité des échantillons et essais.

Champs-sur-Marne, le 13 février 2014

Le Technicien
Responsable de l'essai

Olivier BRAULT

Le Chef du Laboratoire
Réaction au Feu

Nicolas ROURE

Trame rapport Rev.06

DESCRIPTION SOMMAIRE

Tissu uni à base de fibres 100 % coton, ignifugé par foulardage.

- Référence « Article 14/50 Velum » :
  Masse surfacique nominale : 75 g/m².
  Epaisseur nominale : 0,18 mm.

- Référence « Article 24/28 Toile » :
  Masse surfacique nominale : 200 g/m².
  Epaisseur nominale : 0,35 mm.

Coloris : divers.

CARACTERISTIQUES COMPLEMENTAIRES

La référence et la quantité du produit ignifugeant figurent au dossier.

Caractéristiques mesurées du produit « Article 14/50 Velum » présenté :
Masses surfaciques : environ 80 g/m² (coloris écru) et environ 85 g/m² (coloris noir et blanc).
Epaisseur : environ 0,15 mm pour les coloris écru, noir et blanc.

Caractéristiques mesurées du produit « Article 24/28 Toile » présenté :
Masse surfacique : environ 210 g/m² pour les coloris écru, noir et blanc.
Epaisseur : environ 0,35 mm pour les coloris écru, noir et blanc.

ESSAI AU BRULEUR ELECTRIQUE

L'éprouvette (18 x 60 cm) tendue sur une grille est disposée sur un support à 30° sur l'horizontale. Un cache incombustible est rabattu au dos, au départ de l'essai. Le matériau est soumis au rayonnement calorifique et à un courant de gaz chauds provoqués par un brûleur électrique disposé, suivant son axe vertical, à 3 cm sous l'éprouvette.
Après 20 secondes, une flamme pilote est amenée au contact de l'éprouvette pendant 5 secondes. L'opération est répétée ensuite toutes les 30 secondes pendant 5 minutes.
Les éléments déterminants sont : durée d'inflammation, distances détruites depuis le bord inférieur des éprouvettes et présence ou non de chutes de gouttes.

Les dimensions de chaque éprouvette sont vérifiées avant chaque épreuve.

Caractéristiques mesurées des éprouvettes testées : (Masse / Epaisseur totale)

Eprouvette n° 1 (coloris blanc) : environ 10 g / environ 0,15 mm
Eprouvette n° 2 (coloris blanc) : environ 10 g / environ 0,15 mm
Eprouvette n° 1 (coloris noir) : environ 11 g / environ 0,15 mm
Eprouvette n° 2 (coloris noir) : environ 11 g / environ 0,15 mm
Eprouvette n° 1 (coloris écru) : environ 10 g / environ 0,15 mm
Eprouvette n° 2 (coloris écru) : environ 10 g / environ 0,15 mm

Sur échantillons en l'état de réception : 6 épreuves effectuées sur le produit référencé « Article 14/50 Velum ».

Désignation	Inflammation (en seconde)	Extinction (en seconde)	Percement (en seconde)	Chute de goutte ou de matière enflammée	Distance détruite (en cm)
Eprouvette n° 1 Face 1 / sens 2 Coloris blanc	—	—	—	non	19
Eprouvette n° 2 Face 2 / sens 2 Coloris blanc	—	—	—	non	20
Eprouvette n° 1 Face 2 / sens 1 Coloris noir	—	—	—	non	19
Eprouvette n° 2 Face 1 / sens 2 Coloris noir	—	—	—	non	20
Eprouvette n° 1 Face 1 / sens 1 Coloris écru	—	—	—	non	26
Eprouvette n° 2 Face 2 / sens 1 Coloris écru	—	—	—	non	20

Résultats : sur l'ensemble des épreuves réalisées avant vieillissement, nous n'observons pas de durée d'inflammation supérieure à 5 secondes.

ESSAI AU BRULEUR ELECTRIQUE (suite)

Les dimensions de chaque éprouvette sont vérifiées avant chaque épreuve.

Caractéristiques mesurées des éprouvettes testées : (Masse / Epaisseur totale)

Eprouvette n° 1 (coloris blanc) : environ 23 g / environ 0,35 mm
Eprouvette n° 2 (coloris blanc) : environ 23 g / environ 0,35 mm
Eprouvette n° 1 (coloris noir) : environ 23 g / environ 0,35 mm
Eprouvette n° 2 (coloris noir) : environ 23 g / environ 0,35 mm
Eprouvette n° 1 (coloris écru) : environ 23 g / environ 0,35 mm
Eprouvette n° 2 (coloris écru) : environ 23 g / environ 0,35 mm

Sur échantillons en l'état de réception : 6 épreuves effectuées sur le produit référencé « Article 24/28 Toile ».

Désignation	Inflammation (en seconde)	Extinction (en seconde)	Percement (en seconde)	Chute de goutte ou de matière enflammée	Distance détruite (en cm)
Eprouvette n° 1 Face 2 / sens 2 Coloris blanc	—	—	—	non	19
Eprouvette n° 2 Face 1 / sens 1 Coloris blanc	50 / 110 / 170	53 / 111 / 171	—	non	20
Eprouvette n° 3 Face 2 / sens 1 Coloris noir	25	27	—	non	20
Eprouvette n° 4 Face 2 / sens 2 Coloris noir	25	26	—	non	19
Eprouvette n° 1 Face 2 / sens 1 Coloris écru	—	—	—	non	19
Eprouvette n° 2 Face 1 / sens 2 Coloris écru	—	—	—	non	19

Résultats : sur l'ensemble des épreuves réalisées avant vieillissement, nous n'observons pas de durée d'inflammation supérieure à 5 secondes.

ESSAI AU BRULEUR ELECTRIQUE (suite)

Les dimensions de chaque éprouvette sont vérifiées avant chaque épreuve.

Caractéristiques mesurées des éprouvettes testées : (Masse / Epaisseur totale)

Eprouvette n° 10 (coloris blanc) : environ 10 g / environ 0,15 mm
Eprouvette n° 11 (coloris blanc) : environ 10 g / environ 0,15 mm
Eprouvette n° 2 (coloris noir) : environ 10 g / environ 0,15 mm
Eprouvette n° 8 (coloris noir) : environ 10 g / environ 0,15 mm
Eprouvette n° 9 (coloris écru) : environ 10 g / environ 0,15 mm
Eprouvette n° 10 (coloris écru) : environ 10 g / environ 0,15 mm

Après vieillissement accéléré en chambres climatiques et brossage : 6 épreuves effectuées sur le produit référencé « Article 14/50 Velum ».

Désignation	Inflammation (en seconde)	Extinction (en seconde)	Percement (en seconde)	Chute de goutte ou de matière enflammée	Distance détruite (en cm)
Eprouvette n° 10 Face 1 / sens 1 Coloris blanc	—	—	—	non	19
Eprouvette n° 11 Face 2 / sens 2 Coloris blanc	—	—	—	non	18
Eprouvette n° 2 Face 2 / sens 2 Coloris noir	—	—	—	non	18
Eprouvette n° 8 Face 1 / sens 1 Coloris noir	—	—	—	non	17
Eprouvette n° 9 Face 2 / sens 1 Coloris écru	—	—	—	non	20
Eprouvette n° 10 Face 1 / sens 2 Coloris écru	—	—	—	non	19

Résultats : sur l'ensemble des épreuves réalisées après vieillissement, nous n'observons pas de durée d'inflammation supérieure à 5 secondes.

Rapport d'essais n°RA14-0015A

ESSAI AU BRULEUR ELECTRIQUE (suite)

Les dimensions de chaque éprouvette sont vérifiées avant chaque épreuve.

Caractéristiques mesurées des éprouvettes testées : (Masse / Epaisseur totale)

Eprouvette n° 7 (coloris blanc) : environ 23 g / environ 0,35 mm
Eprouvette n° 8 (coloris blanc) : environ 23 g / environ 0,35 mm
Eprouvette n° 1 (coloris noir) : environ 23 g / environ 0,35 mm
Eprouvette n° 2 (coloris noir) : environ 23 g / environ 0,35 mm
Eprouvette n° 4 (coloris écru) : environ 23 g / environ 0,35 mm
Eprouvette n° 5 (coloris écru) : environ 23 g / environ 0,35 mm

Après vieillissement accéléré en chambres climatiques et brossage : 6 épreuves effectuées sur le produit référencé « Article 24/28 Toile ».

Désignation	Inflammation (en seconde)	Extinction (en seconde)	Percement (en seconde)	Chute de goutte ou de matière enflammée	Distance détruite (en cm)
Eprouvette n° 7 Face 2 / sens 1 Coloris blanc	25	27	—	non	17
Eprouvette n° 8 Face 1 / sens 2 Coloris blanc	—	—	—	non	17
Eprouvette n° 1 Face 1 / sens 2 Coloris noir	—	—	—	non	16
Eprouvette n° 2 Face 2 / sens 1 Coloris noir	25	28	—	non	16
Eprouvette n° 4 Face 2 / sens 2 Coloris écru	25	29	—	non	17
Eprouvette n° 5 Face 1 / sens 1 Coloris écru	—	—	—	non	18

Résultats : sur l'ensemble des épreuves réalisées après vieillissement, nous n'observons pas de durée d'inflammation supérieure à 5 secondes.

.....FIN DU RAPPORT D'ESSAIS

General site supervision certificate

Number: **P-BWU03-I-16.5.417**

(Translation of the German original, no verified by by MPA - Universität Stuttgart (Otto-Graf-Institut))

Subject matter: Flame retardant agent “RUCO-FLAM NGF” for finishing fabrics made of cellulosic fibres including jute as flame retardant building material (building material class DIN 4102-B1) according to Building Rules List A, part 2, edition 2015/2 with changes 2016/1 and notification of change 2016/2, serial no. 2.10.2

Date of issue: 17 November 2017

Date of expiry: 30 November 2022

Due to this general site supervision certificate, the above mentioned subject matter is applicable according to the state building regulation.

This general site supervision certificate contains 7 pages and 0 annexes. Jurisdiction and place of performance is Stuttgart.

I. General provisions

1. The general site supervision certificate does not replace legal approvals, consents and certificates required for implementing building projects.

2. The general site supervision certificate is granted without prejudice to the rights of third parties, especially private proprietary rights.

3. Manufacturers and distributors of the building product have to provide copies of the general site supervision certificate to the user of the building product without prejudice to further regulations under “Special provisions” and have to point out that the general site supervision certificate has to be available at the point of use. All parts involved shall receive copies of the general site supervision certificate upon request.

4. The general site supervision certificate must always be copied entirely. The publication of extracts requires the approval of the MPA - Universität Stuttgart (Otto-Graf-Institut).Texts and drawings of promotions must not contradict the general site supervision certificate. Translations of the general site supervision certificate must contain the remark “Translation of the German original, not verified by MPA - Universität Stuttgart (Otto-Graf-Institut).

5. The general site supervision certificate is revocable. The provisions of the general site supervision certificate can be amended at a later date, especially if new technical findings require it.

6. The building product mentioned in the present general site supervision certificate require a proof of conformity (certificate of conformity) and a labelling with the conformity mark according to the regulation on marks of conformity of the federal states.

II. Special provisions

1. Subject matter and field of application

1.1 Subject matter

Flame retardant agent “RUCO-FLAM NGF” for finishing fabrics made of cellulosic fibres including jute as flame retardant building material (building material class DIN 4102-B1) according to Building Rules List A, part 2, edition 2015/2 with changes 2016/1 and notification of change 2016/2, serial no. 2.10.2

1.2 Field of application

1.2.1 The flame retardant may be used for finishing of fabrics made of cellulosic fibres in all colours - jute included - if this fabric is used as a building product (e.g. stage curtains), which must be securely installed.

1.2.2 The weight per unit area of the finished fabric made of cellulosic fibres - jute excluded - must be 88 g/m2 to 557 g/m2, with a flame retardant dry coverage of approximately 200 g/kg.
The weight per unit area of the finished fabric made of jute must be 330 g/m2 to 361 g/m2, with a flame retardant dry coverage of approximately 200 g/kg.

1.2.3 The fabrics finished with the flame retardant must only be used in closed spaces without moisture penetration. The flame retardant is not resistant to the penetration of water as well as washing and dry cleaning. After a care treatment by washing or dry cleaning, the flame retardant finish must be renewed.

1.2.4 The fabrics finished with the flame retardant must not be exposed to weather.

1.2.5 The fabrics finished with the flame retardant maintain their flame retardant properties only without additional paintings, coatings or similar.

1.2.6 This general site provision certificate is only valid, if requirements according to the Building Rules List A, part 2, edition 2015/2 with changes 2016/1 and notification of change 2016/2, serial no. 2.10.2 have to be fulfilled.

1.2.7 The prove of further site provision requirements as e.g. stability, resistance to fire, heat or sound insulation or health and environmental protection are no subject matters of the present general site provision certificate. Therefore, further/other certificates (general site provision approval) might be necessary.

2. Requirements of building product

2.1 Properties and composition

2.1.1 The flame retardant is a colourless, clear and water-dilutable liquid based on phosphate.
The flame retardant has to be produced in such a way that the fabrics made of cellulosic fibres including jute finished comply with the requirements on flame retardant building materials (building material class B1) according to DIN 4102-1: 1998-05.

2.1.2 The composition must correspond to the data stored with the MPA - Universität Stuttgart (Otto-Graf-Institut).

2.1.3 Test method

The building product must comply with the requirements on flame retardant building materials (building material class 81) according to DIN 4102-1:1998-05.

2.1.4 Basis for granting the general site supervision certificate

Name of test centre		No. of certificates/test reports/reports date	test method/rules
MPA - Universität Stuttgart Otto-Graf-Institut		certificate 903 3583 000 of 17/11/2017	DIN 4102-1 DIN 4102-16

2.1.5 Requirements of the execution of building product

2.1.5.1 The flame retardant may be used for finishing of fabrics made of cellulosic fibres - jute included - if this fabric is used as a building product (e.g. stage curtains), which must be securely installed.

2.1.5.2 The weight per unit area of the finished fabric made of cellulosic fibres - jute excluded - must be 88 g/m2 to 557 g/m2, with a flame retardant dry coverage of approximately 200 g/kg.
The weight per unit area of the finished fabric made of jute must be 330 g/m2 to 361 g/m2, with a flame retardant dry coverage of approximately 200 g/kg.

2.1.5.3 The fabrics finished with the flame retardant must only be used in closed spaces without moisture penetration. The flame retardant is not resistant to the penetration of water as well as washing and dry

cleaning. After a care treatment by washing or dry cleaning, the flame retardant finish must be renewed.

2.1.5.4 The fabrics finished with the flame retardant have only flame retardant properties, if the distance to other flat building materials is at least 40 mm.

2.1.5.5 The finished fabrics must not be treated with paintings, coatings or similar.

2.1.5.6 The suitability of the building material for the application as heat insulation and for sound insulation is not proved.

2.1.5.7 During the production of the building product, the requirements of paragraph II 2.1 have to be fulfilled.

2.2 Conformity mark

The manufacturer has to label each building product with the conformity mark (Ü-symbol) according to the regulations on conformity marks of the federal states.
It must be only labelled, if it complies with the requirements according to paragraphs 3.1 to 3.3.
The Ü-symbol must be fixed on the building product or on the packaging (applies also for instruction leaflets) or, if not possible, on the delivery note.

The following information must be fixed to the building material or to the packaging:

- product name
- conformity mark (Ü-symbol) with
- name of manufacturer
- certificate number: P-BWU03-I-16.5.417
- graphical symbol or name of certification body
- manufacturing plant
- building material class flame retardant (DIN 4102-B1) according to application area

3. Certificate of conformity

3.1 General

Conformity of the building product with the regulations of the present general site supervision certificate must be confirmed for each manufacturing plant by means of a certificate of conformity based on in-company production control and regular external supervision including initial test of the building material according to the regulations of the present general site supervision certificate.

For granting the certificate of conformity and for carrying out external supervision including the product tests to be realised, the manufacturer must involve a recognised certification and supervision authorities.

3.2 In-company production control

An in-company production control[1)] has to be established and carried out assuring by means of the manufacturer's continuous supervision of production that the building product complies with the regulations of the general site supervision certificate.

For maintaining and implementing the in-company production control, the "regulations on the certificate of conformity"[2)] are pertinent.

The results of the in-company production control must be recorded and evaluated. The records must at least include the following information:

- name of the building product
- type of control
- manufacturing date and date of production control of building product
- test results and comparison with requirements
- signature of person responsible for in-company production control

The retention period for records is at least five years and must be presented to the supreme building supervisory board responsible for the external supervision. In case of an unsatisfactory control result, the manufacturer must immediately take the necessary steps to correct the defects and to eliminate all products concerned. The in-company production control has to guarantee that building products not complying with the requirements are not labelled with the Ü-symbol. After correcting the defect, the respective control has to be repeated.

1) In this case, the general requirements on the Building Rules List A, section 1, paragraph 4, edition 2015/2 (DIBt communications 06 October 2015) must be considered.

2) "Directive on certificate of conformity of flame retardant building materials (building material class DIN 4102-B1) after the general site supervision approval" (Communications DIBT 2/1997)

3.3 External supervision

In every manufacturing plant, the in-company production control must be regularly verified at least once a year by an external supervision authority.

The relevant version of the “Certificate of conformity regulations”[2)] is standard for the supervision.

The external supervision must include an initial inspection of the building product. During the external supervision, samples for spot tests must be taken. The recognised supervision body is responsible for sampling and tests.

The retention period for the results of certification and external supervision is at least five years. They must be presented upon request to the responsible supreme building supervisory board by the certification body or external supervision.

3.4 Legal basis

This general site supervision certificate is issued on the basis of article 17 of the “Bayerische Bauordnung” (BayBO = Bavarian Building Regulations), version 14 August 2007, last amendment on 17/11/2014 in combination with the Building Rules List A, part 2, edition 2015/2 with changes 2016/1 and notification of change 2016/2. The corresponding legal basis is contained in the state building regulations of the other federal states.

3.5 Advice on legal remedies

An objection against this general site supervision certificate may be filed within one month upon receipt. The objection has to be filed either in writing or for record at Universität Stuttgart, Keplerstraße 7, 70174 Stuttgart or PO box 106037, 70049 Stuttgart.

2) “Directives on the certificate of conformity of flame retardant building materials (building material class DIN 4102-81) according to the general site supervision approval” (Communications DIBT 2/ 1997)

Exova Warringtonfire, Frankfurt
Industriepark Höchst, C369
Frankfurt am Main
D-65926
Germany

T : +49 (0) 69 305 3476
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E : EBH@exova.com
W: www.exova.com

Exova

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Test report
No. 2011-2508-1
issued 12.01.2012

Auftragsdatum:	**13.12.2011**
Datum der Probenahme:	**no official taking out of the specimen from a representative of the Exova Warringtonfire, Frankfurt**
Eingang der Proben:	**13.12.2011**
Datum der Prüfungen:	**11.01.2012**

Auftrag:

Determination of the ignition time according to nach EN 1101 (ISO 6940) and of the vertical flame spread according to DIN EN 13772 with classification to DIN EN 13773.

Description / designation of the test object

Textile sample designated as “article (Schleier-) Nessel- and Dekomolton “

Description of the relevant test procedure

EN 1101

DIN EN 13772

DIN EN 13773 (Mai 2003)

1. Description of the test material

1.1 Details of the customer:

Textile sample designated as "article (Schleier-) Nessel and Dekomolton"

Construction: Cotton flame retardant treated

Application area: Stage area and deko area

1.2 At the specimen preparation from Exova Warringtonfire, Frankfurt determined values:

Flame retardant treated cotton fabric

Colour: black

Thickness: 0,5 mm (average)

Square weight: 204 g/m² (average)

Testing after clima storing 23°C and 50% rel. Luftfeuchte.

05.04.2012

2.1.1 Test sheet according to EN 1101 (ISO 6940)

(Determination of the ignition time)

Test room: 21°C / 40% r. L.F.

Ignition times: 1 - 20 s

Specimen no.		1	2	3	4	5	6	7	8
Test direction	L/Q	L	L	L	L	Q	Q	Q	Q
Kind of ignition	E/S	E	E	E	E	E	E	E	E
Ignition time	[s]	1	2	3	4	1	2	3	4
Total burn time	[s]	1	2	3	4	1	2	3	4
After flame time	[s]	0	0	0	0	0	0	0	0
After glow time	[s]	0	0	0	0	0	0	0	0
After flaming ≥ 5 [s]	yes/no	no	no	no	no	no	no	no	no
Reaching of the upper edge of the specimen	yes/no	no	no	no	no	no	no	no	no
Reaching the side edges	yes/no	no	no	no	no	no	no	no	no
Drop of from sample parts*		-	-	-	-	-	-	-	-
Ignition of the filter paper*		-	-	-	-	-	-	-	-
Igntion	yes/no	no	no	no	no	no	no	no	no

If not the case, - L = length Q = width S = surface E =edge

Remarks: none

05.04.2012

2.1.2 Test sheet according to EN 1101 (ISO 6940)

(Determination of the ignition time)

Test room: 21°C / 40% r. L.F.

Ignition times: 1 - 20 s

Specimen no.		9	10	11	12	13	14	15	16
Test direction	L/Q	L	L	L	L	Q	Q	Q	O
Kind of ignition	E/S	E	E	E	E	E	E	E	E
Ignition time	[s]	5	10	15	20	5	10	15	20
Total burn time	[s]	5	10	15	20	5	10	15	20
After flame time	[s]	0	0	0	0	0	0	0	0
After glow time	[s]	0	0	0	0	0	0	0	0
After flaming ≥ 5 [s]	yes/no	no	no	no	no	no	no	no	no
Reaching of the upper edge of the specimen	yes/no	no	no	no	no	no	no	no	no
Reaching the side edges	yes/no	no	no	no	no	no	no	no	no
Drop of from sample parts*		-	-	-	-	-	-	-	-
Ignition of the filter paper*		-	-	-	-	-	-	-	-
Igntion	yes/no	no	no	no	no	no	no	no	no

If not the case, - L = length Q = width S = surface E =edge

Remarks: none

05.04.2012

2.2.1 Test results according to DIN EN 13772:
(Determination of the vertical flame spread)

Impact time of the radiator: 30s Ignition time: 10 s

Specimen no.		1	2	3	4	5	6
Test direction	L/Q	L	L	L	Q	Q	Q
Kind of ignition	S/E	E	E	E	E	E	E
Ignition time	[s]	10	10	10	10	10	10
Total burn time	[s]	18	20	17	18	15	15
After flame time	[s]	8	10	7	8	5	5
After glow time	[s]	0	0	0	0	0	0
Reaching the 1. mark in	[s]	-	-	-	-	-	-
Reaching the 2. mark in	[s]	-	-	-	-	-	-
Reaching the 3. mark in	[s]	-	-	-	-	-	-
Flame spread v1	[mm/min]	0	0	0	0	0	0
Flame spread v2	[mm/min]	0	0	0	0	0	0
Flame spread t v3	[mm/min]	0	0	0	0	0	0
Separating of sample parts*		-	-	-	-	-	-
Ignition of the filter paper*		-	-	-	-	-	-
Destroyed area length	[mm]	170	160	180	170	180	170
Destroyed area width	[mm]	30	30	40	40	30	40

If not the case, - L = length Q = width S = surface E =edge

Remarks: none

05.04.2012

Exova

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3. Classification:

The in chapter 1 described material fulfilles the requirements of the class 1 according to DIN EN 13773.

Besonderer Hinweis

The fire test result is only valid for the in chapter 1 described material.

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

This test report replaces the translation of the test report 2011-2508 from January 12th 2012 (date of signature) which is invalid from now on

Frankfurt, 04th April 2012

P. Scheinkönig
Tester in Charge

Dipl.-Ing. T. Zachäus
Laboratory Supervisor

05.04.2012

Bauaufsichtlich anerkannte Prüf-, Überwachungs- und Zertifizierungsstelle
Prüfstelle für Feuerlöschmittel und -geräte
DIN EN ISO/IEC 17025: D-PL-17819-01-00
DIN EN ISO/IEC 17065: D-ZE-17819-01-00
DIN EN ISO/IEC 17020: D-IS-17819-01-00
ZLS-GS-0066
Notified Body no. 0767

MPA Dresden

Klassifizierungsbericht
CLASSIFICATION REPORT

Klassifizierung des Brandverhaltens nach DIN EN 13501-1:2010-01
fire classification acc. to DIN EN 13501-1:2010-01

Nr./ *no.* 20150515/02

1. Ausfertigung
1st execution

Prüfmaterial: *Test object:*	Dekogewebe / Bühnengewebe mit einer Grammatur von 75 g/m² bis 320 g/m² *Decorative fabrics / Stage fabrics with a weight of 75 g/m² to 320 g/m²*
Berichtsumfang: *This report comprises:*	5 Seiten und 0 Anlagen *5 pages and 0 annexes*
Hinweis: *Information:*	Der Klassifizierungsbericht wurde zweisprachig (deutsch/englisch) erstellt. In Zweifelsfällen ist der deutsche Wortlaut maßgeblich. *The classification report is issued bilingual (German and English). In case of doubt, the German wording is valid.*

Veröffentlichungen von Klassifizierungsberichten, auch auszugsweise und Hinweise auf Prüfungen zu Werbezwecken bedürfen in jedem Einzelfalle der schriftlichen Einwilligung der Prüfstelle. Die ersten Blätter dieses Klassifizierungsberichtes sind mit dem Firmenstempel der MPA Dresden GmbH versehen.
Publications of classification reports and information on tests for publicity purposes require the written approval of the institution in every isolated case. Every page of this report is stamped with the seal of the test institution.

Überwachen • Zertifizieren • MPA Dresden GmbH

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Amtsgericht Chemnitz HRB 28268
Steuernummer: 220/114/03384
USt-IdNr. DE291271296

Sparkasse Mittelsachsen
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09599 Freiberg
IBAN DE68 87052000311502467 2
BIC WELADED1FGX

We're burning for you! Wir brennen für Sie

1 Einführung
Introduction

Am 17.04.2015 beauftragten Sie uns mit der Ausfertigung eines Klassifizierungsberichtes zum Nachweis des Brandverhaltens nach DIN EN 13501-1:2010-01[1].
On 2015-04-17 we were requested to issue a classification report for reaction to fire performance acc. to DIN EN 13501-1:2010-01[1].

2 Angaben zum klassifizierten Bauprodukt
Details of classified product

2.1 Art und Verwendungszweck
Nature and end use application

Die Klassifizierung in diesem Klassifizierungsbericht gilt für das klassifizierte Bauprodukt für die folgenden Anwendungsbereiche: Dekoration (75 g/m²) und Vorhänge, Bühnendekoration, Verdunklung (320 g/m²)
Classification given in this classification report is valid the construction product's following and use application: decoration (75 g/m²) and curtains, stage decoration, dimm-out (320 g/m²)

Werden nachträglich Anstriche, Beschichtungen o. ä. aufgebracht, ist ein neuer Nachweis des Brandverhaltens für diesen Anwendungsfall erforderlich.
If the product is furnished with any sort of coatings its reaction to fire performance is to be tested and classified separately for this end use application.

2.2 Beschreibung des Bauproduktes
Description of the construction product

Das Bauprodukt wird in den im Abschnitt 3 aufgeführten Prüfberichten, die der Klassifizierung zu Grunde liegen, vollständig beschrieben.
The product is fully described in the test reports scheduled in clause 3 underlying this classification.

Handelsbezeichnung: *Trade name:*	Dekogewebe / Bühnengewebe mit einer Grammatur von 75g/m² bis 320g/m² *Decorative fabrics / Stage fabrics with a weight of 75g/m² to 320g/m²*
Materialbasis: *Material base:*	100 % Baumwolle
Flächengewicht*: *area weight*:*	(87,4 - 334,3) g/m²
Dicke *: *Thickness *:*	(0,3 - 1,6) mm

* Werte von der Prüfstelle ermittelt/ *values measured from the test institute*

[1] DIN EN 13501-1:2010-01 Klassifizierung von Bauprodukten und Bauarten zu ihrem Brandverhalten – Teil 1: Klassifizierung mit den Ergebnissen aus den Prüfungen zum Brandverhalten von Bauprodukten

3 Prüfberichte und Prüfergebnisse für die Klassifizierung
Test reports and test results in support of this classification

3.1 Prüfberichte
Test reports

Name des Prüflabors *Name of laboratory*		Nr. des Prüfberichtes *test report number*	Prüfverfahren *Test method*
MPA Dresden GmbH		20150515/03	DIN EN ISO 11925-2:2011-02[2]
MPA Dresden GmbH		20150515/04	DIN EN 13823:2010-12[3]

3.2 Prüfergebnisse
Test results

Prüfverfahren *Test method*	Parameter *Parameter*	Anzahl an Prüfungen *Number of tests*	Prüfergebnisse *Results* Mittelwert *Mean*	Parameter *Parameter*
DIN EN 13823:2010-12	$FIGRA_{0.2\,MJ}$	7	463,11	-
	$FIGRA_{0.4\,MJ} \leq 250$ W/s		143,80	J
	$THR_{600s} \leq 15$ MJ		0,898	J
	SMOGRA ≤ 30 m²/s²		11,10	J
	$TSP_{600s} \leq 50$ m²		23,09	J
	LFS < Rand des Probekörpers *LFS < border of the sample*		ja *yes*	J
	brennendes Abfallen/ Abtropfen *Flaming droplets/particles*		nein *no*	J
DIN EN ISO 11925-2:2011-02 Flächen- / Kantenbeflammung *Surface/ edge flame attack* 30s Beflammung / *exposure* brennendes Abtropfen/Abfallen *Flaming droplets/particles*	Fs ≤ 150 mm	48	ja *yes*	J
	Entzündung des Filterpapiers *ignition of filter paper*		nein *no*	J

[2] DIN EN ISO 11925-2:2011-02 Prüfungen zum Brandverhalten – Entzündbarkeit von Produkten bei direkter Flammeinwirkung – Teil 2: Einzelflammentest

[3] DIN EN 13823:2010-12 Prüfungen zum Brandverhalten von Bauprodukten – Thermische Beanspruchung durch einen einzelnen brennenden Gegenstand für Bauprodukte mit Ausnahme von Bodenbelägen

4 Klassifizierung und direkter Anwendungsbereich
Classification and direct field of application

Die Klassifizierung erfolgte nach DIN EN 13501-1:2010-01, Abschnitt 11.5
This classification has been carried out in accordance with clause 11.5 of DIN EN 13501-1:2010-01

4.1 Klassifizierung
Classification

Das Produkt „Dekogewebe / Bühnengewebe mit einer Grammatur von 75 g/m² bis 320 g/m²" wird nach seinem Brandverhalten wie folgt klassifiziert:
The product "Decorative fabrics / Stage fabrics with a weight of 75 g/m² to 320 g/m²" in relation with the fire behaviour is classified:

C

Die zusätzliche Klassifizierung zur Rauchentwicklung ist:
The additional classification in relation with smoke production is:

s1

Die zusätzliche Klassifizierung zum brennenden Abtropfen/Abfallen ist:
The additional classification in relation with burning droplets/particles is:

d0

Brandverhalten *fire behaviour*		Rauchentwicklung *smoke production*		Brennendes Abtropfen *burning droplets*
C	**-**	**s1**	**,**	**d0**

Klassifizierung des Brandverhaltens: C – s1, d0
classification of fire behaviour: C – s1, d0

4.2 Anwendungsbereich
Field of application

Die Klassifizierung in Abschnitt 4.1 gilt nur für das im Abschnitt 2 beschriebene Bauprodukt in den geprüften Dicken von (0,3 - 1,6) mm und dem Flächengewicht von (87,4 - 334,3) g/m² sowie für die freihängende Anwendung und alle Farben.
The classification in clause 4.1 is valid solely for the material as described in clause 2 in the tested thickness (0,3 - 1,6) mm and area weight (87,4 - 334,3) g/m² and for the free hanging use and for all colors.

5 Hinweise
Information

5.1 In Verbindung mit anderen Baustoffen, insbesondere Dämmstoffen/anderen Untergründen, mit anderen Abständen, Befestigungen, Fugenausbildungen/Verbindungen, Dicken- oder Rohdichtebereichen als in Abschnitt 4.2 angegeben, kann das Brandverhalten so ungünstig beeinflusst werden, dass die Klassifizierung in Abs. 4.1 nicht mehr gilt. Das Brandverhalten in Verbindung mit anderen Baustoffen/ anderen Untergründen, Abständen, Befestigungen, Fugenausbildungen/ Verbindungen, Dicken- oder Rohdichtebereichen etc. ist gesondert nachzuweisen.
Used in connection with other materials, especially other substrates/backings, air gaps/voids, types of fixation, joints, thickness- or density-ranges than given in clause 4.2 is performance is likely to be influence this negative, that the given classification in clause 4.1 is no longer valid. Fire performance in connection with other materials, other substrates/backings, air gaps/voids, types of fixation, joints, thickness- or density-ranges, is to be tested and classified separately.

5.2 Wird das Bauprodukt mit zusätzlichen Schichten versehen, ist das Brandverhalten dieses Verbundes gesondert nachzuweisen.
If the product is furnished with any additional sort of coatings its fire performance is to be tested and classified separately.

5.3 Dieser Klassifizierungsbericht ist keine Typzulassung oder Produktzertifizierung und ersetzt nicht einen gegebenenfalls erforderlichen bauaufsichtlichen Nachweis nach deutschem Baurecht (Landesbauordnung).
This classification report does not represent type approval or certification of product and is in no case a substitute for any required certification according to German building regulations (Landesbauordnung).

5.4 Es erfolgte keine Probenahme durch eine dafür anerkannte Stelle.
The sampling was not arranged by a recognised body.

5.5 Vom Hersteller wurde keine Erklärung über die Einstufung seines Produktes in ein System des Übereinstimmungsnachweisverfahrens für die CE-Kennzeichnung im Rahmen der Bauproduktenverordnung (BauPVO) abgegeben.
The manufacturer was not issuing a declaration of the classification of the product to a system of conformity verification procedure for the CE-labelling within the construction products regulation (CPR).

Freiberg, den 03.09.2015

Dr.-Ing. Meißner
Prüfstellenleiter Brandschutz
Laboratory Manager

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Dipl.-Ing. (BA) Meixner
Prüfingenieur
Test Engineer

Acoustic Test Report - Absorption

Absorption Class: E
Calculated to EN ISO 11654:1997
Fabric: Acoustic Transparent
Fullness: Flat
Cavity from Wall: 100mm

J&C Joel
the inspiration behind the performance

Data Sheet 32

The Laboratory Measurement of Random Incidence Sound Absorption generally to BS EN ISO 354:2003

Client: J&C Joel Ltd
Test Date: 20/05/2014

Empty Room:	**Temperature:**	19.0	°C	**Humidity:**	62	%RH	**Pressure:**	999 mbar
Room with Sample:	**Temperature:**	19.2	°C	**Humidity:**	60	%RH	**Pressure:**	1001 mbar

Sample Description: Acoustic Transparent – Single Layer – Flat (Approx. weight 140g/m²) – 100mm cavity from wall

Mounting Method: G-100
Sample Area: 9 m2
Chamber Volume: 300 m3

	Test 34			
Freq Hz	T1 sec	T2 sec	Absorp Coeff	Practical Absorp Coeff #
*50**	*5.33*	*4.93*	*0.08*	
*63**	*5.40*	*4.42*	*0.22*	*n/a*
*80**	*6.56*	*6.34*	*0.03*	
100	7.57	7.88	-0.03	
125	7.11	7.02	0.01	-0.00
160	6.42	6.49	-0.01	
200	7.12	6.59	0.06	
250	7.07	6.68	0.04	0.05
315	6.84	6.04	0.10	
400	6.46	5.62	0.12	
500	5.45	4.62	0.18	0.15
630	4.96	4.19	0.20	
800	5.47	4.25	0.28	
1000	5.91	4.45	0.30	0.30
1250	5.59	4.45	0.25	
1600	5.06	4.17	0.23	
2000	4.75	3.94	0.23	0.25
2500	4.34	3.55	0.27	
3150	3.64	3.08	0.26	
4000	3.09	2.62	0.30	0.30
5000	2.44	2.09	0.34	
*6300**	*1.79*	*1.59*	*0.34*	
*8000**	*1.51*	*1.32*	*0.45*	*n/a*
*10000**	*1.06*	*0.94*	*0.56*	

α_w 0.25

Class E

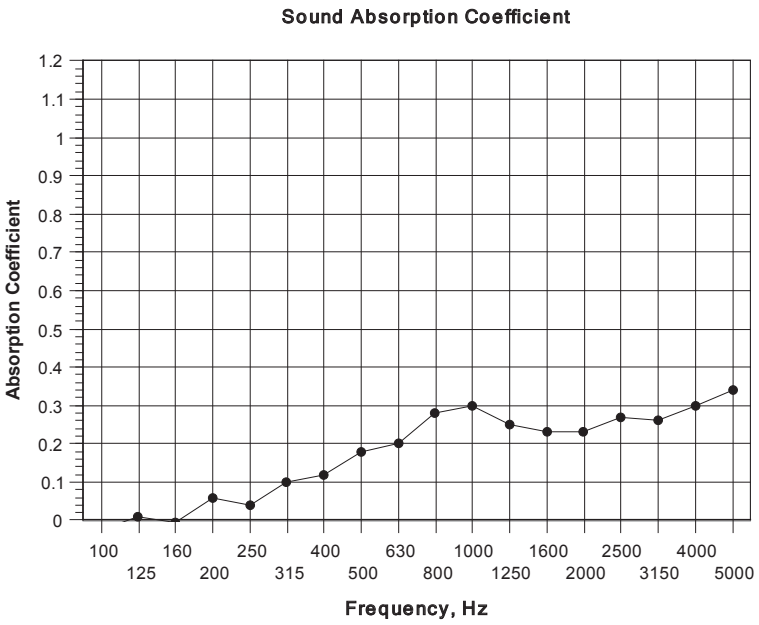
Calculated to EN ISO 11654:1997

NRC 0.20

Calculated to ASTM C 423-01

** Denotes frequencies outside the range covered by BS EN ISO 354:2003*

T1, empty room reverberation time
T2, room reverberation time with sample



Practical absorption coefficient, BS EN ISO 11654:1997

v4.3

Acoustic Test Report - Absorption

Absorption Class: E
Calculated to EN ISO 11654:1997
Fabric: Acoustic Transparent
Fullness: Flat
Cavity from Wall: 350mm

J&C Joel
the inspiration behind the performance

Data Sheet 31

The Laboratory Measurement of Random Incidence Sound Absorption generally to BS EN ISO 354:2003

Client: J&C Joel Ltd
Test Date: 20/05/2014

Empty Room:	**Temperature:**	19.0	°C	**Humidity:**	62	%RH	**Pressure:**	999 mbar
Room with Sample:	**Temperature:**	19.2	°C	**Humidity:**	60	%RH	**Pressure:**	1001 mbar

Sample Description: Acoustic Transparent – Single Layer – Flat (Approx. weight 140g/m²) – 350mm cavity from wall

Mounting Method: G-350
Sample Area: 9 m2
Chamber Volume: 300 m3

	Test 33			
Freq Hz	T1 sec	T2 sec	Absorp Coeff	Practical Absorp Coeff #
*50**	*5.33*	*4.72*	*0.13*	
*63**	*5.40*	*5.01*	*0.08*	*n/a*
*80**	*6.56*	*5.81*	*0.11*	
100	7.57	7.73	-0.02	
125	7.11	6.17	0.11	0.10
160	6.42	5.51	0.14	
200	7.12	5.66	0.19	
250	7.07	5.74	0.18	0.20
315	6.84	5.29	0.23	
400	6.46	5.12	0.22	
500	5.45	4.60	0.18	0.20
630	4.96	4.36	0.15	
800	5.47	4.36	0.25	
1000	5.91	4.66	0.24	0.25
1250	5.59	4.59	0.21	
1600	5.06	4.20	0.22	
2000	4.75	3.84	0.27	0.25
2500	4.34	3.54	0.27	
3150	3.64	3.02	0.29	
4000	3.09	2.56	0.34	0.35
5000	2.44	2.07	0.37	
*6300**	*1.79*	*1.57*	*0.38*	
*8000**	*1.51*	*1.33*	*0.42*	*n/a*
*10000**	*1.06*	*0.93*	*0.62*	

α_w 0.25

Class E

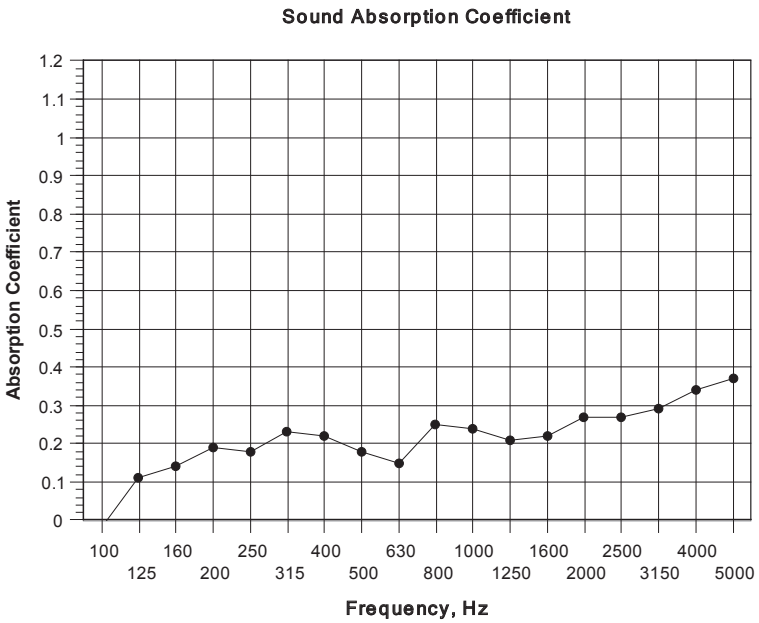
Calculated to EN ISO 11654:1997

NRC 0.20

Calculated to ASTM C 423-01

** Denotes frequencies outside the range covered by BS EN ISO 354:2003*

T1, empty room reverberation time
T2, room reverberation time with sample



Practical absorption coefficient, BS EN ISO 11654:1997

v4.3

J&C Joel

the inspiration behind the performance

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