LEITAT
managing technologies

CLASSIFICATION, ACCORDING TO THEIR FIRE REACTION PROPERTIES, OF TEXTILE SUSPENDED ELEMENTS

TECHNICAL BUILDING CODE
Basic Document - Safety in case of fire (DB-SI)

The material intended for use as a suspended textile element (curtains, drapes...) referenced as

BELVI

presented by

INDETEX N.V.
RUE DU MONT GALLOIS, 58
B-7700 - MOUSCRON
(BELGIUM)

has been tested at LEITAT–Technological Center (report no.**IN-01157/2019-E**) according to the standards **UNE-EN 1101:1996/A1:2005** (equivalent to **EN 1101:1996/A1:2005**) and **UNE-EN 13772:2011** (equivalent to **EN 13772:2011**).

The classification obtained according to the requirements of the standard **UNE-EN 13773:2003** (equivalent to **EN 13773:2003**) is:

CLASS 1

Terrassa, May 29th, 2019

(Document valid until May 29th, 2024)

Sergi Artigas
Corporate Development Manager

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tecnio catalonia Fins a 01/12/2019 | Acció Generalitat de Catalunya

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ENAC ENSAYOS Nº 1/LE626

INDETEX N.V.
RUE DU MONT GALLOIS, 58
7700 - MOUSCRON
BELGIUM

TECHNICAL REPORT

Report No.: **IN-01157/2019-E**
Total pages: 9

PRESENTED SAMPLE

Sample description:

According to the information provided by the applicant:

Product: Blackout curtain; Reference: BELVI; Composition: 100% Polyester + 3 pass coating; Weight: 275 g/m²; Color: Green

Presentation date: 10/05/2019

REQUESTED TESTS

- TEXTILES AND TEXTILE PRODUCTS. BURNING BEHAVIOUR. COURTAINS AND DRAPES. DETAILED PROCEDURE TO DETERMINE THE IGNIABILITY OF VERTICALLY ORIENTED SPECIMENS (SMALL FLAME).
  Standard: UNE-EN 1101:1996/A1:2005
- TEXTILES AND TEXTILE PRODUCTS. BURNING BEHAVIOUR. CURTAINS AND DRAPES. MEASUREMENT OF FLAME SPREAD OF VERTICALLY ORIENTED SPECIMENS WITH LARGE IGNITION SOURCE.
  Standard: UNE-EN 13772:2011
- TEXTILES AND TEXTILE PRODUCTS. BURNING BEHAVIOUR. CURTAINS AND DRAPES. CLASSIFICATION SCHEME.
  Standard: UNE-EN 13773:2003

Performance dates: From 10/05/2019 to 29/05/2019

Materials Unit Coordinator
Jordi Jamilena

Materials Unit Technical Manager
Albert Briz

Firmado digitalmente por Albert Briz Aguilar
Nombre de reconocimiento (DN): c=ES, cn=Albert Briz Aguilar, email=legal@leitat.org, serialNumber=46237530D, sn=Briz Aguilar, givenName=Albert, 1.3.6.1.4.1.17326.30.3=G08360232, o=ACONDICIONAMIENTO TARRASENSE, ou=STA, title=RESPONSABLE TÉCNICO MATERIALES, 2.5.4.13=Qualified Certificate: CAM-PF-SW-KPSC
Fecha: 2019.05.29 14:52:03 +02'00'
Versión de Adobe Acrobat Reader: 2019.012.20034

Terrassa, May 29th, 2019

The tests herein contained has or have been performed under the criteria of Good Environmental Practices, considering the minimization of natural resources consumption, reduction of waste generation and emission of pollutants into water and air as well as the implementation of the best available techniques within our Laboratory's reach.

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ENAC ENSAYOS Nº 1/LE626

TEXTILES AND TEXTILE PRODUCTS. BURNING BEHAVIOUR. COURTAINS AND DRAPES. DETAILED PROCEDURE TO DETERMINE THE IGNIABILITY OF VERTICALLY ORIENTED SPECIMENS (SMALL FLAME).

Standard: UNE-EN 1101:1996/A1:2005

Scope: This standard specifies a method for measuring the ignitability of vertically oriented textile fabrics, and of industrial products in the form of single or multi-composite fabrics (coated, padded, multi-layer, sandwich constructions and similar combinations), when subjected to a small and defined flame.

Test equipment: Vertical flammability test equipment, JBA, no.EQ299
Chronometer, VENTIX, no.EQ1389
Anemometer, TESTO, no.PA075

Conditioning of the specimens: >24 hours at 20ºC ± 2ºC and 65% r.h. ± 5% r.h.

Test conditions:

Identification of test material: According to the information provided by the applicant • *Product: Blackout curtain; Reference: BELVI; Composition: 100% Polyester + 3 pass coating; Weight: 275 g/m²; Color: Green*
Type of test: As indicated by the applicant • After 1 domestic washing cycle (UNE-EN ISO 6330:2012) at 30ºC + Drying: C - Flat (UNE-EN ISO 6330:2012)
Sampling (according to UNE-EN ISO 6940:2004): • Number of specimens: 12 in each direction • Dimensions of the specimens: 200 mm ± 2 mm x 80 mm ± 2 mm
Test atmosphere: 21,6ºC / 49,2% r.h.
Test equipment settings (according to UNE-EN ISO 6940:2004): Procedure B - Ignition from the bottom edge (burner inclined 30º); Flame height: 40 mm ± 2 mm
Air speed: < 0,1 m/s
Tested side: Outer side
Type of gas: Propane, commercial grade
Date of performance: May 24th, 2019

Results:

Previous test	Lengthwise / Warp		Widthwise / Weft	
	Flame application time (s)	Result	Flame application time (s)	Result
	20	O	20	O

Specimen no.	Lengthwise / Warp		Widthwise / Weft	
	Flame application time (s)	Result	Flame application time (s)	Result
1	20	0	20	0
2	20	0	20	0
3	20	0	20	0
4	20	0	20	0
5	20	0	20	0

X: Ignition / O: Not ignition

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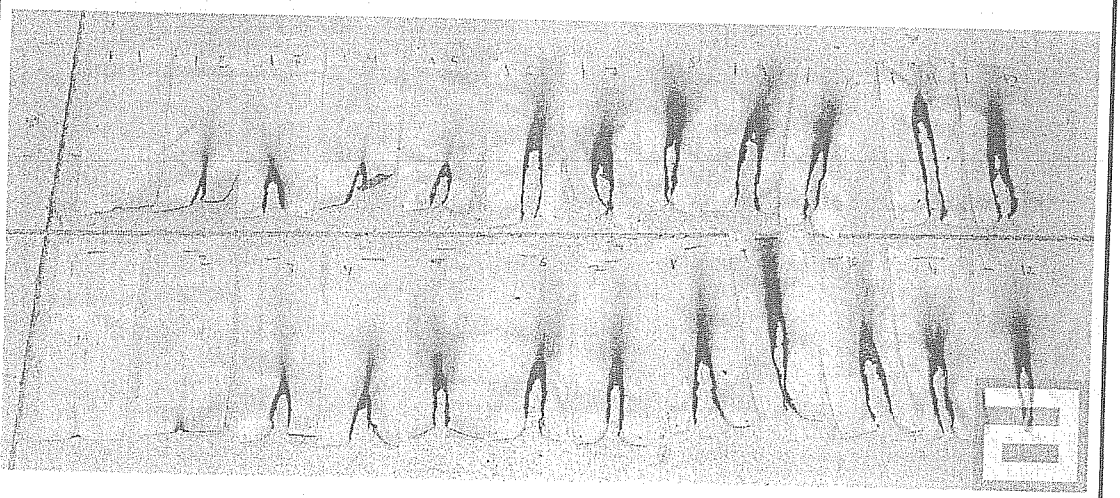
Flame application time (s)	Lengthwise / Warp		Widthwise / Weft	
	Number of ignition cases	Number of not ignition cases	Number of ignition cases	Number of not ignition cases
20	0	5	0	5

	Lengthwise / Warp	Widthwise / Weft
Mean ignition time (s)	>20	>20
Minimum ignition time (s)	>20	
Fabric ignition after 20 s	NO	NO

Picture after testing:

PICTURES OF THE TESTED SPECIMENS (*Blackout curtain, BELVI*)

UNE-EN 1101:1996/A1:2005 – "TEXTILES AND TEXTILE PRODUCTS. BURNING BEHAVIOUR. COURTAINS AND DRAPES. DETAILED PROCEDURE TO DETERMINE THE IGNIABILITY OF VERTICALLY ORIENTED SPECIMENS (SMALL FLAME)"



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TEXTILES AND TEXTILE PRODUCTS. BURNING BEHAVIOUR. CURTAINS AND DRAPES. MEASUREMENT OF FLAME SPREAD OF VERTICALLY ORIENTED SPECIMENS WITH LARGE IGNITION SOURCE.

Standard: UNE-EN 13772:2011

Scope: This European standard specifies a method for measuring flame propagation in vertically oriented textile fabrics intended for curtains and draperies, whether in the form of single or multi-component fabrics (coated, padded, multi-layer, sandwich structure, and similar combinations) using a large flame ignition source.

Test equipment:
Vertical flammability test equipment, JBA, no.EQ299
Chronometer, VENTIX, no.EQ1389
Anemometer, TESTO, no.PA075
Millimeter ruler, no.EQ285

Conditioning of the specimens: >24 hours at 20°C ± 2°C and 65% r.h. ± 5% r.h.

Test conditions:

Identification of test material: According to the information provided by the applicant • *Product: Blackout curtain; Reference: BELVI; Composition: 100% Polyester + 3 pass coating; Weight: 275 g/m²; Color: Green*
Number of specimens: 8 (4 in the lengthwise/warp direction + 4 in the widthwise/weft direction)
Dimensions of the specimens: (560 ± 2) mm x (170 ± 2) mm
Type of test: As indicated by the applicant • In as-received condition • After 12 domestic washing cycles (UNE-EN ISO 6330:2012) at 30°C + Drying: C – Flat (UNE-EN ISO 6330:2012)
Reference material: • Standard cotton fabric (MR006) • Standard cotton marker thread (MR007) • Standard paper filter (MR008)
Test atmosphere: 23,2°C / 52% r.h.
Type of gas: Propane, commercial grade
Flame application: Ignition from the bottom edge (burner inclined 30°)
Air speed: < 0,1 m/s
Temperature increase of the calorimeter between 40°C and 100°C: (3,0 ± 0,1)°C/s
Radiator application time: 30 seconds
Flame application time: 10 seconds
Flame height: 40 mm ± 2 mm
Anisotropic material: No
Date of performance: May 24th, 2019

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Results:

Type of test: In as-received condition	Lengthwise / Warp				Widthwise / Weft			
Specimen no.	1	2	3	4	1	2	3	4
Time elapsed from flame application to marker thread breakage (s)								
From the beginning to 1st thread	0	0	0	0	0	0	0	0
From the beginning to 2nd thread	0	0	0	0	0	0	0	0
From the beginning to 3rd thread	0	0	0	0	0	0	0	0
Marker yarns breakage								
1st marker thread	No	No	No	No	No	No	No	No
2nd marker thread	No	No	No	No	No	No	No	No
3rd marker thread	No	No	No	No	No	No	No	No
Specimen burns and extinguishes before the 1st marker thread	No	No	No	No	No	No	No	No
Length of the damaged area (mm)	176	183	189	182	161	176	164	167
Inflamed residues that burn the filter paper	No	No	No	No	No	No	No	No

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Type of test: After washing cycles	Lengthwise / Warp				Widthwise / Weft			
Specimen no.	1	2	3	4	1	2	3	4
Time elapsed from flame application to marker thread breakage (s)								
From the beginning to 1st thread	0	0	0	0	0	0	0	0
From the beginning to 2nd thread	0	0	0	0	0	0	0	0
From the beginning to 3rd thread	0	0	0	0	0	0	0	0
Marker yarns breakage								
1st marker thread	No	No	No	No	No	No	No	No
2nd marker thread	No	No	No	No	No	No	No	No
3rd marker thread	No	No	No	No	No	No	No	No
Specimen burns and extinguishes before the 1st marker thread	No	No	No	No	No	No	No	No
Length of the damaged area (mm)	169	189	186	154	172	144	167	171
Inflamed residues that burn the filter paper	No	No	No	No	No	No	No	No

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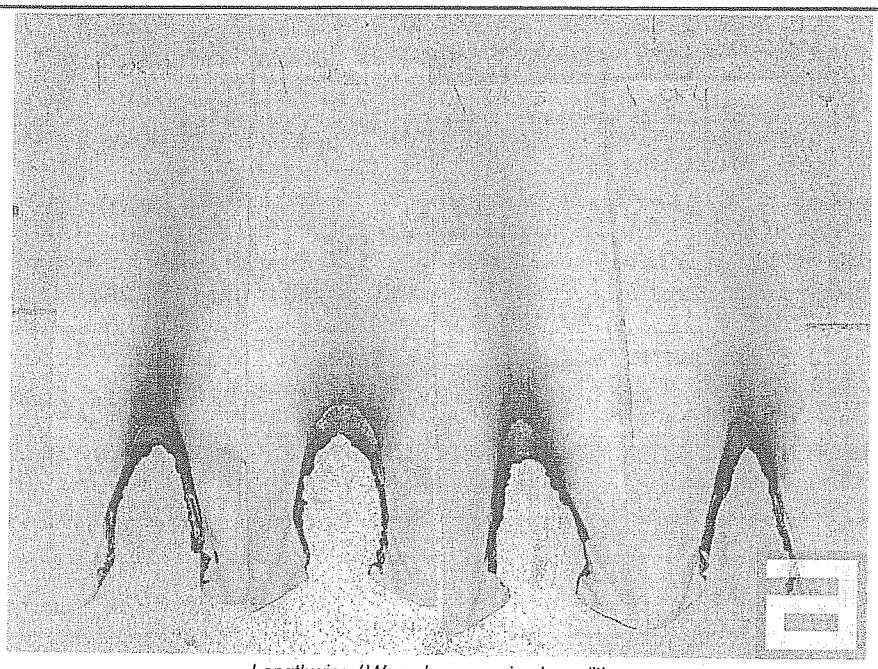
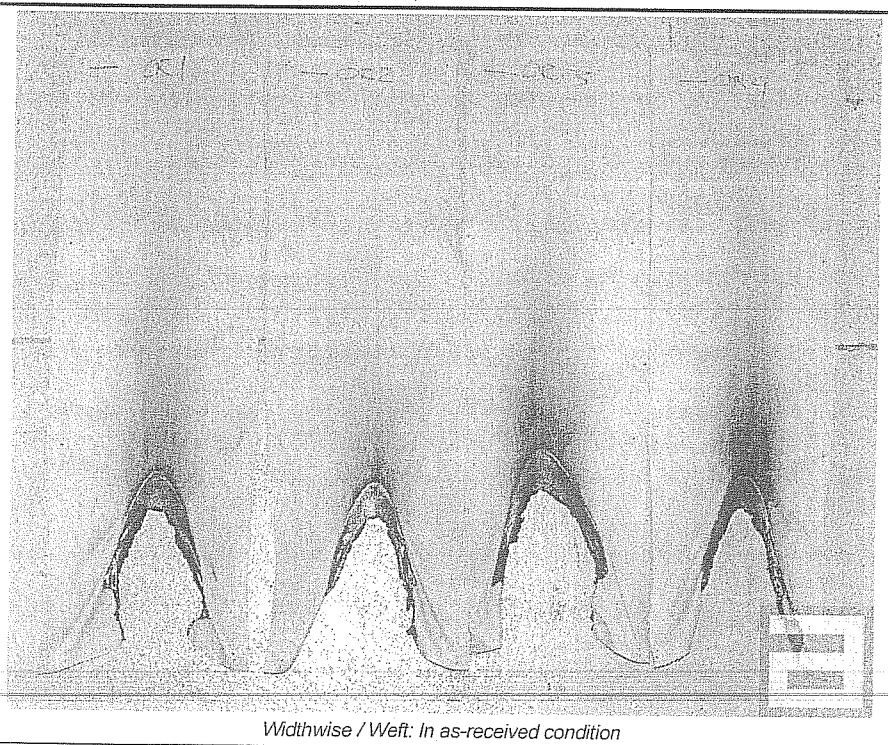
Pictures after testing:



Lengthwise / Warp: In as-received condition



Widthwise / Weft: In as-received condition

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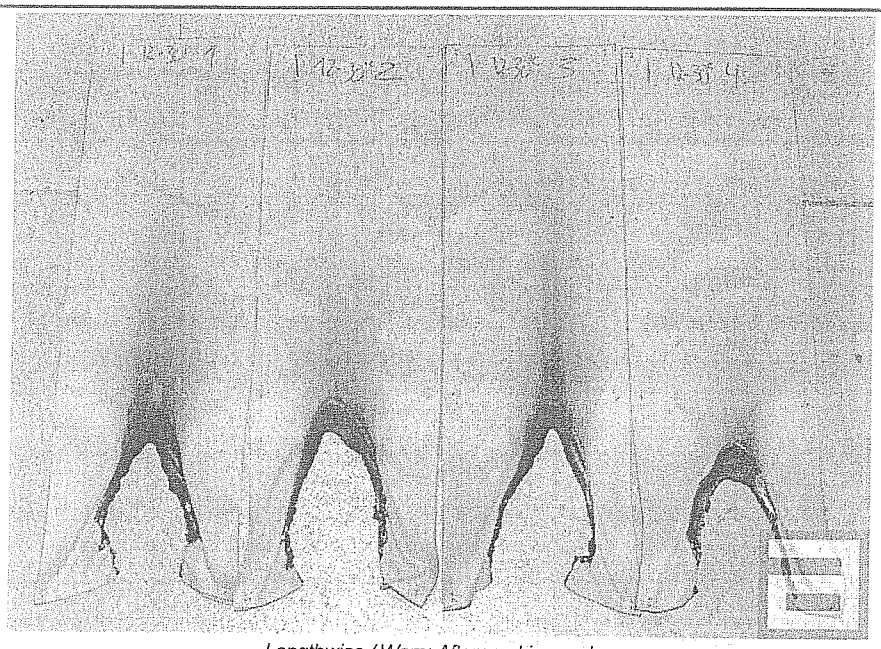
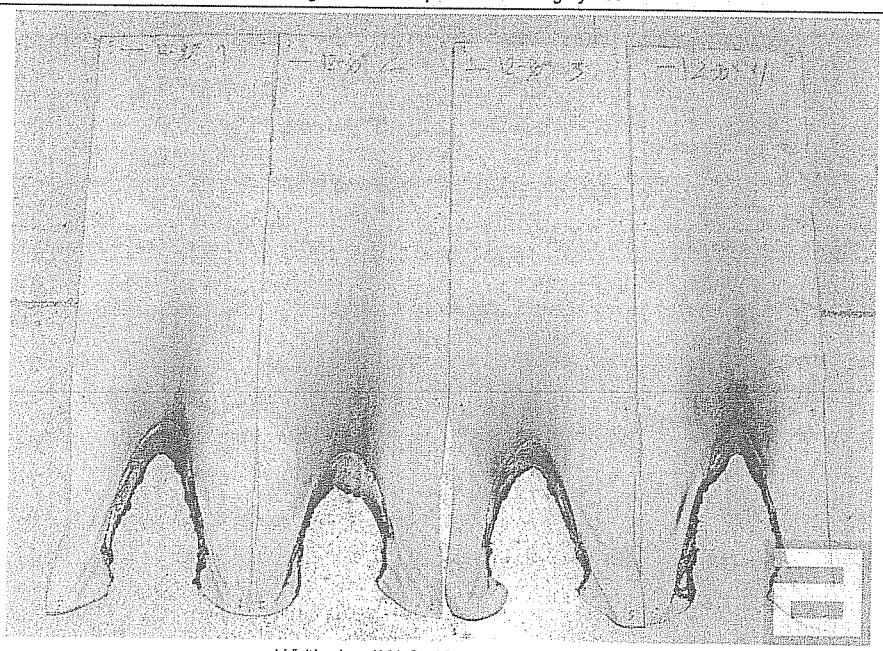


Lengthwise / Warp: After washing cycles



Widthwise / Weft: After washing cycles

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TEXTILES AND TEXTILE PRODUCTS. BURNING BEHAVIOUR. CURTAINS AND DRAPES. CLASSIFICATION SCHEME.

According to: UNE-EN 13773:2003

Scope: This standard specifies a classification scheme for the burning behaviour of vertically oriented fabrics intended for curtains and draperies and similar uses such as blinds and tapestries, where a classification is required.

Description of the presented material:

According to the information provided by the applicant: **Blackout curtain**

Reference or trade name of the product:	**BELVI**
End-use or final disposition:	**Curtains**
Composition:	**100% Polyester + 3 pass coating**
Weight (g/m²) :	**275**
Thickness (mm):	**Information not provided by the applicant**
Color:	**Green**

Classification of the presented material:

According to the results obtained in this technical report, and following the indications of **section 5** in **UNE-EN 13773:2003**, the material is classified as:

STANDARD	CRITERIA	RESULTS
UNE-EN 1101:1996/A1:2005	Ignition	**Non-ignition**
	Non-ignition	
UNE-EN 1102:1996	Not applicable	N.A.
UNE-EN 13772:2011	First marking thread affected	**First marking thread not affected. No residues of the flame action**
	Third marking thread affected	
	Residues of the flame action appear	
CLASSIFICATION	CLASS 1	