



Report 74880 Test Report



Applicant

Kvadrat A/S
Lundbergsvej 10
8400 Ebeltoft
DÄNEMARK

Reference

Mrs. Lone Henriksen

Application

Determination of burning behaviour and dropping behaviour according to EN 13773.

Test Material

"Divina Family"

Material used in testing was anonymized for laboratory purposes. A detailed sample list is contained in the report.

Issuing and Signatures

Number of pages contained: 9

Original Issue / Vienna 2014-10-27 / MM/KK 1832

Authorised for Institute
Ing. Hannes Vittek



Contents

1	Order.....	2
1.1	Chronology.....	2
1.2	Samples	2
2	Findings / Tests performed	3
2.1	Description of the specimen	3
2.2	Dry cleaning procedure	3
2.3	Determination of the ignitability of vertically oriented specimen (small flame).....	4
2.4	Determination of the flame spread of vertically oriented specimen with large ignition source – delivered condition	5
2.5	Determination of the flame spread of vertically oriented specimen with large ignition source – after cleaning	6
2.6	Determination of dropping behaviour – curtains and drapes – delivered condition	7
2.7	Determination of dropping behaviour – curtains and drapes – after cleaning	7
3	Evaluation / Classification	8
3.1	Classification of burning behaviour of curtains and drapes	8
3.2	Classification of dropping behaviour	8
4	Remarks	9

1 Order

1.1 Chronology

<i>Date</i>	<i>Received</i>	<i>Order</i>
2014-10-02	2014-10-02	Determination of burning behaviour and dropping behaviour according to EN 13773.

1.2 Samples

<i>No.</i>	<i>Received</i>	<i>Sample Identification</i>
1	2014-10-02 ⁽¹⁾	"Divina Family"

(1) Samples provided by the customer. (2) Sample drawn by ÖTI.



2 Findings / Tests performed

2.1 Description of the specimen

Description of the specimen according to DIN 60 000

Test results

Tested sample: 1

Type of fibre according to DIN 60 001 part 1	100 % Wool (declaration by the applicant)
Technological description	non-woven fabric

2.2 Dry cleaning procedure

Test conditions

Tested sample: 1

According to EN ISO 3175 part 2 accr.)

Performed by: TZU

Cleaning procedure: Process for sensitive material

Solvent: Tetrachlorethene

Max. temperature of the solvent: 30 °C

Max. drying temperature: 60°C - normal material

Number of cleaning processes: 1 and 6

Finishing treatment procedure: none



2.3 Determination of the ignitability of vertically oriented specimen (small flame)

Test conditions

According to EN 1101 ^{accr.}) and EN 13773 ^{accr.})
Conditioning climate: 20 ± 2 °C / 65 ± 2 % relative humidity
Test climate: temperature: 23 °C, relative humidity: 38 %
Specimen size: 200 mm x 80 mm
Test gas: Propan
Mode of ignition: Edge ignition
Cleaning procedure: 1 cleaning process (see 2.2)

Test results

Tested sample: 1

<i>Longitudinal direction</i>			<i>Cross direction</i>		
Ignition time	Number of Ignitions	no ignitions	Ignition time	Number of Ignitions	no ignitions
1 s	0	1	1 s	0	1
2 s	0	1	2 s	0	1
3 s	0	1	3 s	0	1
4 s	0	1	4 s	0	1
5 s	0	1	5 s	0	1
10 s	0	1	10 s	0	1
15 s	0	1	15 s	0	1
20 s	0	5	20 s	0	5
Middle ignition time:		> 20 s	Middle ignition time:		> 20 s
Minimum ignition time:			> 20 s		



2.4 Determination of the flame spread of vertically oriented specimen with large ignition source – delivered condition

Test conditions

According to EN 13 772 accr.)

Conditioning climate: 20 ± 2 °C / 65 ± 2 % relative humidity

Gas: Propan

Cleaning procedure: The examination took place in the delivered condition.

Test results

Tested sample: 1

	exposed surface	1 st marker thread severed	3 rd marker thread severed	Time from start of inflammation to burning through of the		destroyed length	flaming debris
				1 st marker thread	3 rd marker thread		
Longitudinal direction							
Sample 1	right side	no	no	--	--	11 cm	no
Sample 2	back side	no	no	--	--	10 cm	no
Sample 3	right side	no	no	--	--	11 cm	no
Sample 4	right side	no	no	--	--	12 cm	no
Cross direction							
Sample 1	right side	no	no	--	--	12 cm	no
Sample 2	back side	no	no	--	--	10 cm	no
Sample 3	right side	no	no	--	--	12 cm	no
Sample 4	right side	no	no	--	--	11 cm	no

Precision

With an interlaboratory test with 16 textilen samples in 11 European laboratories it showed up that the determined results are reproducible and repeatable.

Between all laboratories agreeing results showed up. The uncertainty of the measurement [u] corresponds therefore to the dispersion of the individual values of the respective examination.



2.5 Determination of the flame spread of vertically oriented specimen with large ignition source – after cleaning

Test conditions

According to EN 13 772 ^{accr.})

Conditioning climate: 20 ± 2 °C/ 65 ± 2 % relative humidity

Gas: Propan

Cleaning procedure: 6 cleaning processes (see 2.2)

Test results

Tested sample: 1

	exposed surface	1 st marker thread severed	3 rd marker thread severed	Time from start of inflammation to burning through of the		destroyed length	flaming debris
				1 st marker thread	3 rd marker thread		
Longitudinal direction							
Sample 1	back side	no	no	--	--	14 cm	no
Sample 2	right side	no	no	--	--	13 cm	no
Sample 3	back side	no	no	--	--	11 cm	no
Sample 4	back side	no	no	--	--	13 cm	no
Cross direction							
Sample 1	back side	no	no	--	--	13 cm	no
Sample 2	right side	no	no	--	--	12 cm	no
Sample 3	back side	no	no	--	--	11 cm	no
Sample 4	back side	no	no	--	--	14 cm	no

Precision

With an interlaboratory test with 16 textilen samples in 11 European laboratories it showed up that the determined results are reproducible and repeatable.

Between all laboratories agreeing results showed up. The uncertainty of the measurement [u] corresponds therefore to the dispersion of the individual values of the respective examination.



2.6 Determination of dropping behaviour – curtains and drapes – delivered condition

Test conditions

According to EN 13772 ^{accr.})

Type of specimen: curtain

Comment: The determination of dropping behaviour for curtains classified as class 1 or 2 ensures according EN 13 772.

Cleaning procedure: The examination took place in the delivered condition.

Test results

Tested sample: 1

Longitudinal direction				Cross direction			
Sample	Dropping	Number of drops	Igniting dropping	Sample	Dropping	Number of drops	Igniting dropping
1	no	0	--	1	no	0	--
2	no	0	--	2	no	0	--
3	no	0	--	3	no	0	--
4	no	0	--	4	no	0	--

2.7 Determination of dropping behaviour – curtains and drapes – after cleaning

Test conditions

According to EN 13772 ^{accr.})

Type of specimen: curtain

Comment: The determination of dropping behaviour for curtains classified as class 1 or 2 ensures according EN 13 772.

Cleaning procedure: 6 cleaning processes (see 2.2)

Test results

Tested sample: 1

Longitudinal direction				Cross direction			
Sample	Dropping	Number of drops	Igniting dropping	Sample	Dropping	Number of drops	Igniting dropping
1	no	0	--	1	no	0	--
2	no	0	--	2	no	0	--
3	no	0	--	3	no	0	--
4	no	0	--	4	no	0	--



3 Evaluation / Classification

3.1 Classification of burning behaviour of curtains and drapes

Evaluation conditions

In the following the testing methods and test results are aforementioned, after which the classification of the burning behaviour takes place:

- ♦ Determination of the ignitability of vertically oriented specimen (small flame) according EN 1101 (see 2.3) no ignition
- ♦ Determination of the flame spread of vertically oriented specimen with large ignition source according EN 13 772 – delivered condition (see 2.4) 1st marker thread not severed
3rd marker thread not severed
no flaming debris
- ♦ Determination of the flame spread of vertically oriented specimen with large ignition source according EN 13 772 – after cleaning (see 2.5) 1st marker thread not severed
3rd marker thread not severed
no flaming debris

Classification

According the conditions of classification of the EN 13 773 ^{accr.}) the tested specimen "**Divina Family**" can be classified into

Class 1

3.2 Classification of dropping behaviour

Evaluation conditions

According to EN 13772 ^{accr.})

Explanation: For curtains of the class 1 or 2 the determination of dropping behaviour will be performed in accordance with EN 13772. The classification takes place in corresponding interpretation of the former test and classification guideline as follows

- ♦ Tropfenbildungsklasse: nicht tropfend no sample dripped on the filter paper
- ♦ Tropfenbildungsklasse: tropfend At least one of the flamed samples dripping off on the filter paper. But the dripped material did not burn further
- ♦ Tropfenbildungsklasse: zündendtropfend At least one of the flamed samples dripping off on the filter paper and the dripped material burns further.

Classification

According the former test and classification guideline the tested specimen "**Divina Family**" can be classified as follows

nicht tropfend

Note: Not dropping behaviour corresponds in accordance with the former standard ÖNORM B 3800 part 1 point 6,1 to the drop education class Tr1- nicht tropfend



4 Remarks

Validity

There are no regulations concerning duration of validity in the individual test standards. As the results of the examinations refer only to the submitted and examined samples, the report is valid for these for an unlimited period. A period of validity specified as part of an expert evaluation is in the discretion of the consultant or the ÖTI.

The applicability of results and expert evaluations for materials not tested is in the responsibility of the applicant. Whereby an apportionment of results as well as any specified period of validity can only be done for identically constructed products and only as long as the product produced unchanged.

Possible national or international restrictions concerning the terms of usability of test and classification reports have to be considered; this is not the responsibility of the test laboratory.

Sample Material

Results of performed tests only refer to the sample material provided.

Without explicit written other agreement testing is destructive and the sample material is transferred to the property of ÖTI, which is entitled to freely decide on storage and disposal.

Issuance

The valid first issue is done in paper and has single-handed signatures. For reference purposes and filing an unsigned electronic duplicate can be delivered in pdf format. Duplicates and translations will be marked accordingly on the cover sheet.

Quality management, Accreditation and Notification

All tests and services are performed under a quality management system according to EN ISO/IEC 17025 respectively EN ISO/IEC 17065.



The ÖTI is accredited as Testing Laboratory and Certification Body for products. It also is a Notified Body for several directives with the registration number 0534 (see <http://ec.europa.eu/enterprise/newapproach/nando/>). Accreditation as Testing Laboratory was provided by Akkreditierung Austria (bmwfw). The scope of accreditation is listed on www.bmwfw.gv.at/akkreditierung.

In this report test conditions of individual accredited test procedures are marked with *accr.*)

According to the decree on the use of the accreditation mark ("AkkZV") the accreditation mark is only to be used by the accredited Conformity Assessment Body.

Application of the registration number of the Notified Body: As to personal protective equipment (PPE) the requirements of PSA-SV § 10, BGBl. Nr. 596/1994 as amended and article 13 of the Directive 89/686/EEC have to be kept. With construction products the application is only permitted within the declaration of performance for CE-marking.

Copyright und Usage Notes

It is pointed out, that any alterations, amendments or falsifications of reports not authorized by the issuer of the report will be prosecuted as civil and criminal offences; this especially to the appropriate requirements of ABGB, UrhG, UWG and criminal law and their respective international equivalents.

Reports are protected under international copyright laws. Written consent of the ÖTI is required for publications (also in excerpt) and reference to tests for public relation purposes. Reports may only be reproduced in full length.