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Test Report

Akkreditierung Austria A 0012 ISO/IEC 17025

Applicant

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Reference

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Application

Determination according to the classification criteria of EN 1307 as well as castor chair suitability, suitability for using on stairs, resistance to fraying and static electrical propensity.

Test Material

"ege Tuft 950 ECT350"

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

Issuing and Signatures

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Contents

1 Order

1.1 Chronology

Date	*Received*	*Order*
2014-09-25	2014-09-25	Determination according to the classification criteria of EN 1307 as well as castor chair suitability, suitability for using on stairs, resistance to fraying and static electrical propensity.

1.2 Samples

No.	*Received*	*Sample Identification*
1	2014-09-25 (1)	"ege Tuft 950 ECT350"

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

2 Findings / Tests performed

2.1 Description of specimen

Description of specimen according to ISO 2424

Test results

Tested sample: 1

Manufacturing procedure:	Tufted
Type of face side:	Loop pile
Type of base:	Non-woven fabric
Type of backing:	Textile backing (nonwoven)
Type of coloration / pattern:	Tonal effect
Type of fibres at face side *):	100 % Polyamide (according to the applicant)
Dimensions:	tiles
Type of floor covering:	Pile carpet

*) According to the current version of the relevant European Directives, fibre materials with a mass percentage of < 2 % are not specified

The submitted specimen is a pile carpet according to EN 1307.

2.2 Determination of mass per unit and pile mass per unit area

Test conditions

According ISO 8543 accr.)
Test atmosphere: 20° C / 65 % rel. humidity
Type of shearing apparature: Sharp pointed knife
Number of samples: 4

Test results

Tested sample: 1

	mass per unit area	pile mass per unit area
Mean value	**3265 g/m²**	**743 g/m²**
Coefficient of variation	0.4 %	1.8 %
Confidence interval (P = 95 %) absolute width	± 23 g/m²	± 22 g/m²

Note:
The pile mass per unit area of pile carpets represents the mass over the carpet-ground which can be sheared with the sharp pointed knife. If other procedures are consulted for the shearing of the pile material, then is to be counted on deviating results. The pile mass per unit area should not be confounded with the pile weight.

2.3 Determination of thickness and thickness of wear layer

Test conditions

Testing according
Determination of thickness according to ISO 1765 accr.)
Determination of thickness of wear layer according to ISO 1766 accr.)
Test atmosphere: 20° C / 65 % rel. humidity
Shearing methode: Sharp pointed knife
Number of samples: 4

Test results

Tested sample: 1

	total thickness	thickness of wear layer
Mean value	**8.4 mm**	**4.2 mm**
Coeffizient of variation	0.6 %	0.0 %
Confidence interval (P = 95 %) absolute width	± 0.1 mm	± 0.0 mm

2.4 Calculation of surface pile density and pile fibre volume ratio

Test conditions

The calculation was made according ISO 8543 accr.) with integration of the following test results:

Pile material	Polyamide
Density of pile material	1.14 g/cm³
Mass of pile per unit area	743 g/m²
Thickness of above the substrate pile	4.2 mm

Test results

Tested sample: 1

Surface pile density	0.177 g/cm³
Relative surface pile density	15.5 %

2.5 Determination of number of tufts or loops

Test conditions

According to ISO 1763 accr.)

Test results

Tested sample: 1

Number of tufts or loops / 10 cm	in length direction:	44.7
	in cross direction:	47.7
Number of tufts or loops per dm²:		2132
Number of tufts or loops per m²:		213200

2.6 Determination of fibrebind of synthetic looppile carpets

Test conditions

Testing according EN 1963, Test C accr.)
Evaluation according: EN 1307
Duration: 400 double passages

Test results

Tested sample: 1

Assessment of appearance change: better than photostandard

Evaluation

The specimen fullfills the requirements of EN 1963 or 1307.

2.7 Determination of the basic requirements of textile floor coverings

Test conditions

According to EN 1307:2014 accr.)

Test results

Tested sample: 1

	Basic requirements	Test results
Colour fastness to a)		Conformity has to be declared by the manufacturer for each colour
◆ Light	≥ 5 (natural fibres ≥ 4)	
◆ Rubbing		
- dry	≥ 3-4	
- wet	≥ 3	
◆ Water – Change in colour		
- plain carpets	≥ 3-4	
- patterned carpets	≥ 4	
◆ Water – staining		
- all carpets	≥ 2-3	

a) Conformity has to be declared by the manufacturer for each colour.

Fibre bind for carpets < 80 % natural fibres		
◆ Loop pile carpets	Fuzzing below level of reference photographs	fulfilled

Judgement

The tested material fulfills the basic requirements of pile carpets according to EN 1307.

2.8 Determination of changes in appearance – Drum Test

Test conditions

According to EN 1307 and ISO/TR 10 361 accr.)
Assessment according EN 1471
Number of drum revolutions: 5 000 and 20 000
Number of specimens: 1

Test results

Tested sample: 1

	5 000 revolutions	20 000 revolutions
Index of appearance change (median)	4.5	4.0
Index of colour change (median)	5	4
Main reasons for change	structure	structure
Index after colour correction (median)	**4.5**	**4.0**
Index after colour correction (mean)	**4.3**	**3.8**

Damages through the treatment	none

Assessment indices: Index 1 – high change, Index 5 – no change

2.9 Classification of textile floor coverings

Test conditions

According to EN 1307:2014 accr.)

Test results

Tested sample: 1

Index of appearance change according to ISO 10361	◆ Short time test	4.5
	◆ Long time test	4.0

Classification

Change in apperance	Class 33

Overall use class	**Class 33**
Luxury rating class	**LC 3**

Explanation:
Textile floor coverings are classified to their suitability in different use classes. The tested and mentioned characteristics used to describe the use behaviour in dependence to the intensity of use. The different use classes are described as followed:

Domestic		Commercial	
Class	**Use intensity**	**Class**	**Use intensity**
21	light	31	light
22	medium	32	medium
23	heavy	33	heavy

Textile floorcoverings are classified into following luxury rating classes.

Luxury rating class	"luxury value"
LC 1	plain
LC 2	good
LC 3	high
LC 4	luxurious
LC 5	prestige

2.10 Determination of total mass of individual tile

Test conditions

According ISO 8543 accr.)
Test atmosphere: 20° C / 65 % rel. humidity
Number of samples: 4

Test results

Tested sample: 1

	total mass of individual tile
Mean value	**0.705 kg**
Coefficient of variation	1.4 %
Confidence interval (P = 95 %) absolute width	± 0.016 kg

2.11 Determination of the side length, squareness and straightness of tiles

Test condition

According to EN 994 accr.)
Number of tested specimens: 5
Nominal dimension: Length: 480; Width: 480

Test results

Tested sample: 1

Determination of dimensions		Length direction	Cross direction
mean length	[mm]	480.1	480.2
min. average length	[mm]	480.0	479.9
max. average length	[mm]	480.2	480.3
difference between the smallest and the largest average length	[mm]	0.2	0.4
max. deviation from mean length	[%]	< 0.1	< 0.1
max. deviation from nominal dimension	[%]	± 0.0	0.1

Squareness and straightness		
max. deviation	[mm]	< 0.20
max. deviation	[%]	< 0.04

2.12 Determination of dimensional changes and distortion out of plane

Test conditions

According to EN 986 accr.)

Test results

Tested sample: 1

		Dimensional change [%]	
		length	cross
1. Treatment 2 hours storage (drying) at 60 °C	1. Measurement	- 0.2	- 0.2
	2. Measurement	- 0.2	- 0.2
	3. Measurement	- 0.2	- 0.2
	Mean value	**- 0.2**	**- 0.2**
2. Treatment 2 hours storage in water at 20 °C	1. Measurement	- 0.1	+ 0.1
	2. Measurement	- 0.1	± 0.0
	3. Measurement	+ 0.1	± 0.0
	Mean value	**± 0.0**	**± 0.0**
3. Treatment 24 hours storage (drying) at 60 °C	1. Measurement	- 0.2	- 0.1
	2. Measurement	- 0.2	± 0.0
	3. Measurement	- 0.1	+ 0.1
	Mean value	**- 0.2**	**± 0.0**
4. Treatment 48 hours storage at standard atmosphere	1. Measurement	- 0.3	- 0.1
	2. Measurement	- 0.2	- 0.1
	3. Measurement	- 0.3	± 0.0
	Mean value	**- 0.3**	**- 0.1**

maximum distortion out of plane [mm] after the treatment (step 4):			
specimen 1	specimen 2	specimen 3	**Mean value**
0	0	0	**0**

Note: A plus (+) is used to indicate an increase and a minus (-) is used to indicate shrinkage in dimensions.

2.13 Determination of the resistance to fraying

Test conditions

Testing according to EN 1814 accr.)
Number of test samples: 4
Kind of test sample: tiles

Test results

Tested sample: 1

Desciption of cut edge after treatment:

Delamination	not occured
Fraying	not occured
Tuft loss / sprouting	not occured
Thread puller	not occured
Release of fibers from the pile material	not occured
No change	accurate

Judgement

The tested specimen can be classified as **resistant to fraying.**

2.14 Classification of pile carpets, additional requirements for pile carpet tiles

Test conditions

According to EN 1307:2014 accr.), annex A

Test results

Tested sample: 1	Requirements			Test results
	Non adhered tile	**Adhered tile**		
	Loose laid	***Removable***	***Permanent***	
Total mass of individual tile, ISO 8543	≥ 0.875 kg	≥ 0.500 kg	- - -	0.705 kg
Total mass per unit area, ISO 8543	≥ 3.5 kg/m²	≥ 2.0 kg/m²	- - -	3.265 kg/m²
Dimensions, EN 994	± 0.20 % in the same batch			max. deviation to the mean length longitudinal < 0.1 % cross < 0.1 %
Squareness and straightness of edges, EN 994	± 0.15 % in both directions			max. deviation < 0.04 %
Dimension stability, EN 986	shrinkage in both directions ≤ 0,2 %		≤ 0,4 %	max. dimensional change longitudinal -0.2 % cross - 0.2 %
	extension in both directions ≤ 0,2 %		≤ 0,2 %	
Curling / doming, EN 986	max. deviation of any part of the sample from its plane ≤ 2 mm		- - -	max. curling / max. doming 0 mm
Damage at cut edge (fraying), EN 1814 *)	no damage			no damage

*) not relevant for needled floor coverings and flocked carpet.

Judgement

The submitted sample fulfils the additional requirements for removable adhered and permanent adhered carpet tiles according EN 1307, Annex A (normative).

2.15 Determination of the castor chair suitability of textile floor coverings

Test conditions

According to EN 985, Method A accr.)
Test apparatus: castor chair test equipment, Typ: Feingerätebau Baumberg
Castors: according EN 985

Test results

Tested sample: 1

Test duration	change of attribute	Index of colour change *)	Index of appear-ance change *)
5 000 revolutions	structure	3 - 4	3.0
25 000 revolutions	structure	3	3.0
Castor chair index (r)	**3.0**		

*) Note: Index 1 - high change / Index 5 - no change

Damages by the treatment: none

Classification

According the specifications of **EN 1307** the specimen can be classified as:

"suitable for intensive use"

2.16 Classification of the suitability for use on stairs

Test conditions

According to EN 1963; Test method B: nosing test accr.)

Test results

Tested sample: 1

Appearance change*) in the edge area	**low appearance change**

*)complete mean

Classification

According to EN 1307 the specimen can be classified as suitable

"suitable for intensive use"

Note: A workmanlike construction of the stair nose with a rounding radius of at least 10 mm is presupposed to the judgement.

2.17 Assessment of static electrical propensity – walking test

Test conditions

According to ISO 6356 accr.)
Testing atmosphere: 23 °C / 25 % rel. humidity
Base plate: Isolating rubber mat on metal plate
Sole-material: XS-664P Neolite
Pretreatment: none

Test results

Tested sample: 1

Supplied condition			
Measurement 1	Measurement 2	Measurement 3	**Mean value**
- 0.2 kV	- 0.3 kV	- 0.4 kV	**- 0.3 kV**

Judgement

The tested sample in supplied condition can be classified as **antistatic** according EN 14041:2004.

2.18 Determination of vertical resistance

Test conditions

According to ISO 10965 accr.)
Test atmosphere: 23°C ± 1°C / 25% ± 3% rel. humidity
Circuit voltage: 500 V

Test results

Tested sample: 1

Sample	Measurement	Vertical resistance
1	1	4.5×10^{10} Ω
	2	3.0×10^{10} Ω
2	1	1.5×10^{10} Ω
	2	2.0×10^{10} Ω
3	1	1.5×10^{10} Ω
	2	2.5×10^{10} Ω
Geometric mean value		**2.3×10^{10} Ω**

2.19 Summarized test report

According to EN 1307:2014accr.), Annex B

Identification, basic information	
Productname	**"ege Tuft 950 ECT350"**
Date	2014-10-23
Manufacturer / User	EGETAEPPER A/S
Type of face side	Loop pile (reference according to B.2.2: A4)
Manufacturing procedure	Tufted (reference according to B.2.1: M5)
Backing	Textile backing (reference according to B.2.4: S10)
Type of floor covering	Pile carpet
Base	Non-woven fabric (reference according to B.2.3: P3)
Colouration	Tonal effect (reference according to B.2.5: C3)
Fibres of pile	100 % Polyamide (according to the applicant)
Total mass	3265 g/m²
Pile mass above the substrate	743 g/m²
Total thickness	8.4 mm
Pile height	4.2 mm
Surface pile density	0.177 g/cm³
Number of tufts or loops	2132 /dm²
Vettermann-drum test, short time testing	4.5
Vettermann-drum test, long time testing	4.0
Basic requirements	**fulfilled**

Use class	
Classification of change in appearance	**Class 33**
Level of use classification	**33**
Comfort-Class	**LC3**

Additional properties	
Castor chair suitability	suitable for intensive use
Stair suitability	suitable for intensive use
Body voltage from the walk test	- 0.3 kV
Vertical resistance	2.3 x 10^{10} Ω
Resistance to fraying	passed

Specific information for flooring tiles	
Tile type	permanent adhered
Dimensions of tiles	480 cm x 480 cm
Total mass of individual tile	0.705 kg
Total mass per unit area	3.265 kg/m²
Basic requirements for tiles fulfilled for	**removable adhered** and **permanent adhered**

3 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

This issue is a rewriting of report 081086.3, dated 2015-07-16.

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.

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