



## Report VN720 122795.2 Test Report



### Applicant

EGETAEPER A/S  
Industrivej Nord 25  
7400-Herning  
Denmark

### Reference

Lenette Ormstrup

### Application

Classification according to EN 1307 as well as castor chair suitability, suitability for use on stairs, resistance to fraying and static electrical propensity, vertical resistance and dimensional stability.

### Test material

"Una Grano 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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Authorised for Institute  
Ing. Hannes Vittek

A handwritten signature in blue ink, appearing to read "Vitteh", written over a horizontal dotted line.

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**1 Order**

**1.1 Chronology**

Date	Received	Order
06.09.2016	08.09.2016	Classification according to EN 1307 as well as castor chair suitability, suitability for use on stairs, resistance to fraying and static electrical propensity, vertical resistance and dimensional stability.

**1.2 Samples**

Nr.	Received	Sample Identification
1	08.09.2016	"Una Grano ECT350"
2	29.11.2016	"Una Grano ECT350" (subsequent delivery to sample 1)

(Unless otherwise stated samples are provided by the customer.)

## 2 Summarized test report

According to EN 1307 Annex B

<b>Identification, basic information</b>	
Productname	"Una Grano ECT350"
Date	2016-12-21
Manufacturer / User	EGETAEPER 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 (non-woven) (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	Multi-coloured patterned (reference according to B.2.5: C2)
Dimensions	tiles
Fibres of pile	100 % Polyamide (according to the applicant)
Total mass	2786 g/m <sup>2</sup>
Pile mass above the substrate	349 g/m <sup>2</sup>
Total thickness	6,8 mm
Pile height	2,8 mm
Surface pile density	0,125 g/cm <sup>3</sup>
Number of tufts or loops	1670 /dm <sup>2</sup>
Fibre bind, Fuzzing – loop pile	Better than photo standard
Vettermann-drum test, short time testing	4,5
Vettermann-drum test, long time testing	4,5
<b>Classification, EN 1307</b>	
Basic requirements	fulfilled
Classification of change in appearance	Class 33
Level of use classification	Class 33
Comfort-Class	LC 1
<b>Additional usage characteristics</b>	
Castor chair suitability	suitable for intensive use
Suitability for use on stairs	suitable for intensive use
Body voltage, walking test	- 0,5 kV
Classification according to EN 14041:2004	antistatic
Vertical resistance	5,0 x 10 <sup>10</sup> Ω
Dimensional change	Max. deviation ±0,1 %

Requirements for carpet tiles	
Dimensions of tiles	480 x 480 cm
Deviation of dimensions	< 0,1 %
Deviations of squareness and edge straightness	< 0,04 %
Total mass of each tile	0,620 kg
Total weight per unit area	2,786 kg/m <sup>2</sup>
Dimensional stability – shrinkage	- 0,1%
Dimensional stability – elongation	+ 0,1%
Curling / doming	0 mm
Fraying resistance	resistant to fraying
Basic requirements	fulfilled

### 3 Findings / Tests performed

Tested sample

1

DESCRIPTION OF SPECIMEN textile floor coverings EN 1307	
Number of specimen	1
Manufacturing procedure	tufted
Structure of face side	loop pile
Coloration of face side	multicoloured patterned
Type of backing	textile backing (non-woven)
Type of fibres at face side *)	100 % Polyamide
Description according to standard	pile carpet according to EN 1307
*) According to the current version of the relevant European Directives, fiber materials with a mass percentage of < 2 % are not specified.	
MASS PER UNIT AREA of textile floor coverings ISO 8543	
Number of specimen	4
Climatisation	
- Temperature [°C]	20
- Rel. air humidity [%]	65
Mass per unit area	
- Mean value [g/m <sup>2</sup> ]	2786
- Coefficient of variation [%]	0,1
- Confidence interval (P = 95 %) abs. width [g/m <sup>2</sup> ]	4
MASS PER UNIT AREA of textile floor coverings ISO 8543	
Number of specimen	4
Climatisation	
- Temperature [°C]	20
- Rel. air humidity [%]	65
Pile mass per unit area	
- Mean value [g/m <sup>2</sup> ]	349
- Coefficient of variation [%]	1,3
- Confidence interval (P = 95 %) abs. width [g/m <sup>2</sup> ]	7
THICKNESS of textile floor coverings ISO 1765	
Number of specimen	4
Climatisation	
- Temperature [°C]	20
- Air humidity [%]	65
Thickness	
- Mean value [mm]	6,8
- Coefficient of variation [%]	0,9
- Confidence interval (P = 95 %) abs. width [mm]	0,1

<b>THICKNESS WEAR LAYER of textile floor coverings</b> <b>ISO 1766</b> Number of specimen Test atmosphere - Temperature [°C] - Air humidity [%] Shearing methode Thickness of wear layer - Mean value [mm] - Coefficient of variation [%] - Confidence interval (P = 95 %) abs. width [mm]	  4 20 65 Sharp pointed knife 2,8 0,0 0,0
<b>PILE DENSITY</b> <b>ISO 8543</b> Number of specimen Pile material Density of pile material [g/cm <sup>3</sup> ] Mass of pile per unit area [g/cm <sup>2</sup> ] Thickness of above the substrate pile [mm] Surface pile density [g/cm <sup>2</sup> ] Relative surface pile density [%]	  4 100% Polyamide 1,14 349 2,8 0,125 10,9
<b>NUMBER OF TUFTS OR LOOPS</b> <b>ISO 1763</b> Number of specimen Number of tufts or loops / 10 cm - in length direction - in cross direction Number of tufts or loops per dm <sup>2</sup> Number of tufts or loops per m <sup>2</sup>	  4 33,0 50,6 1670 167000
<b>BASIC REQUIREMENTS of textile floor coverings</b> <b>EN 1307</b> Basic requirements - Floor covering with Pile (Loop pile) Colour fastness Fibre bind < 80 % natural fibres Loop pile - Fuzzing Judgement Basic requirements	  Conformity has to be declared by the manufacturer for each colour  better than photographs  fulfilled
<b>CHANGES IN APPERANCE - drum test</b> <b>ISO 10361</b> Number of specimen Number of revolutions After 5 000 revolutions - Index of apperance change (Median) - Index of colour change (Median) - Main reasons for change - Index after colour correction (Median) - Index after colour correction (Mean value) After 20 000 revolutions - Index of apperance change (Median) - Index of colour change (Median) - Main reasons for change - Index after colour correction (Median) - Index after colour correction (Mean value) Damages by the treatment	  2  4,5 4-5 structure 4-5 4,7  4,5 4-5 structure 4,5 4,3 none

<p>CLASSIFICATION of textile floor coverings EN 1307</p> <p>Classification of pile floor coverings Index of appearance change - Short time test - Long time test Classification of change in appearance Classification of overall use class Classification of luxury rating class</p>	<p>1 4,5 4,5 33 33 LC1</p>
<p>CASTOR CHAIR SUITABILITY of textile floor coverings EN 985 A</p> <p>Number of specimen Mounting of specimen</p> <p>Castors Test duration 5000 revolutions - Change of attribute [Grade] - Index of colour change [Grade] - Index of appearance change [Grade] Test duration 25000 revolutions - Change of attribute [Grade] - Index of colour change [Grade] - Index of appearance change [Grade] Castor chair index Damages by the treatment Suitable for castor chairs</p>	<p>2 double sided adhesive tape „SIGAN 2“ (UZIN UTZ AG) single wheels, type H colour, structure 3 3,0 colour, structure 2-3 2,5 2,9 none suitable for intensive use</p>
<p>SUITABILITY FOR USE ON STAIRS EN 1963 B</p> <p>Number of specimen Median of appearance change in the edge area [Grade] Judgement</p>	<p>4 low appearance change suitable for intensive use</p>
<p>STATIC ELECTRICAL PROPENSITY - Walking test ISO 6356</p> <p>Number of specimen Testing climate - Temperature [°C] - Air humidity [%] Base plate Sole-material Pretreatment Body-Voltage - supplied condition - Test 1 [kV] - Test 2 [kV] - Test 3 [kV] - Mean value [kV] - Judgement</p>	<p>1 23 25 Isolating rubber mat on metal plate XS-664P Neolite none -0,5 -0,4 -0,5 -0,5 The tested sample in supplied condition can be classified as antistatic according EN 14041:2004.</p>

ELECTRICAL RESISTANCES of textile floor coverings ISO 10965		
Number of specimen		3
Testing climate		
- Temperature	[°C]	23
- Air humidity	[%]	25
Measuring voltage	[V]	500
Vertical resistance		
- Specimen 1 - 1st measurement	[Ω]	8,0x10 <sup>10</sup>
- Specimen 1 - 2nd measurement	[Ω]	6,0 x10 <sup>10</sup>
- Specimen 2 - 1st measurement	[Ω]	5,0 x10 <sup>10</sup>
- Specimen 2 - 2nd measurement	[Ω]	6,0 x10 <sup>10</sup>
- Specimen 3 - 1st measurement	[Ω]	3,5 x10 <sup>10</sup>
- Specimen 3 - 2nd measurement	[Ω]	3,0 x10 <sup>10</sup>
- Geom. Mean value	[Ω]	5,0 x10 <sup>10</sup>
MASS PER UNIT AREA of textile floor coverings ISO 8543		
Number of specimen		4
Climatisation		
- Temperature	[°C]	20
- Rel. air humidity	[%]	65
Total mass of individual tile		
- Mean value	[kg]	0,620
- Coefficient of variation	[%]	0
- Confidence interval (P = 95 %) abs. width	[kg]	0,0
SIDE LENGTH, SQUARENESS, STRAIGHTNESS EN 994 carpet tiles		
Number of specimen		5
Nominal dimension		
- Length	[mm]	480
- Width	[mm]	480
Determination of dimensions - length		
- Mean length	[mm]	480,3
- Min. average length	[mm]	480,1
- Max. average length	[mm]	480,4
- Difference between the smallest and the largest average length	[mm]	0,3
- Max. deviation from mean length	[%]	< 0,1
- Max. deviation from nominal dimension	[%]	0,1
Determination of dimensions - width		
- Mean length	[mm]	480,1
- Min. average length	[mm]	479,9
- Max. average length	[mm]	480,3
- Difference between the smallest and the largest average length	[mm]	0,4
- Max. deviation from mean length	[%]	< 0,1
- Max. deviation from nominal dimension	[%]	0,1
Squareness and straightness		
- Max. deviation	[mm]	< 0,20
- Max. deviation	[%]	< 0,04

<p>RESISTANCE TO FRAYING EN 1814</p> <p>Number of specimen Kind of test sample Description of cut edge after treatment - Delamination - Fraying - Tuft loss / sprouting - Thread puller - Release of fibers from the pile material Judgement</p>	<p>4 tiles</p> <p>not occurred not occurred not occurred not occurred not occurred resistant to fraying</p>
<p>CLASSIFICATION of pile carpets EN 1307 annex A Additional requirements for pile carpet tiles</p> <p>Total mass of individual tile, ISO 8543 [kg] Total mass per unit area, ISO 8543 [kg/m<sup>2</sup>] Dimensions, EN 994 [%] Squareness and straightness of edges, EN 994 [%] Dimension stability, EN 986 [%] Curling / doming, EN 986 [mm] Damage at cut edge (fraying), EN 1814</p>	<p>0,620 2,786 &lt; 0,1 &lt; 0,04 ± 0,1 0 no damage</p>

Tested sample

2

DIMENSIONAL CHANGES AND DISTORTION OUT OF PLANE EN 986		
Number of specimen		3
1. Treatment		
- Measurement 1 - length	[%]	-0,1
- Measurement 2 - length	[%]	-0,1
- Measurement 3 - length	[%]	-0,1
<b>- Mean value - length</b>	<b>[%]</b>	<b>-0,1</b>
- Measurement 1 - cross	[%]	±0,0
- Measurement 2 - cross	[%]	±0,0
- Measurement 3 - cross	[%]	±0,0
<b>- Mean value - cross</b>	<b>[%]</b>	<b>±0,0</b>
2. Treatment		
- Measurement 1 - length	[%]	±0,0
- Measurement 2 - length	[%]	±0,0
- Measurement 3 - length	[%]	±0,0
<b>- Mean value - length</b>	<b>[%]</b>	<b>±0,0</b>
- Measurement 1 - cross	[%]	±0,0
- Measurement 2 - cross	[%]	±0,0
- Measurement 3 - cross	[%]	±0,0
<b>- Mean value - cross</b>	<b>[%]</b>	<b>±0,0</b>
3. Treatment		
- Measurement 1 - length	[%]	±0,0
- Measurement 2 - length	[%]	-0,1
- Measurement 3 - length	[%]	-0,1
<b>- Mean value - length</b>	<b>[%]</b>	<b>±0,0</b>
- Measurement 1 - cross	[%]	+0,1
- Measurement 2 - cross	[%]	+0,1
- Measurement 3 - cross	[%]	±0,0
<b>- Mean value - cross</b>	<b>[%]</b>	<b>+0,1</b>
4. Treatment		
- Measurement 1 - length	[%]	-0,1
- Measurement 2 - length	[%]	-0,1
- Measurement 3 - length	[%]	-0,1
<b>- Mean value - length</b>	<b>[%]</b>	<b>-0,1</b>
- Measurement 1 - cross	[%]	±0,0
- Measurement 2 - cross	[%]	±0,0
- Measurement 3 - cross	[%]	±0,0
<b>- Mean value - cross</b>	<b>[%]</b>	<b>±0,0</b>
Maximum disortion out of plane after treatment		
- Specimen 1	[mm]	0
- Specimen 2	[mm]	0
- Specimen 3	[mm]	0

## 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.

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### 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

Some results are from report VN720 122795.1, dated 2016-12-21.

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

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In this report individual non-accredited test procedures are marked with \*.

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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