

TEST REPORT N° RL 2017/244-1

DELIVERY : 10/04/2017

MATERIAL RECEIVED : 23/03/2017

ORIGIN : MODULYSS N.V
Zevensterrestraat 21
B 9240 ZELE
BELGIUM

NAME OF QUALITY : **MOTION**

TESTS TYPE : TEST ACCORDING TO EN 1307 (2016)

The Technical Director
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It contains **5** page(s) and **2** annex(s).

I – Description of the sample

- Manufacturing type : Tufted
- Surface type : Structured loop pile with mechanical patterns
- Primary backing type : non woven polyester
- Backing type : Bitumen
- Pile fibre composition : 100% polyamide BCF
- Colouring : 847

II – Material identification**II.1 – Characteristics individual results (in accordance with ISO 8543 chapter 6-8-9 – NF ISO 1765 – NF ISO 1763 - NF ISO 1766)**

| Test Sample | 1 | 2 | 3 | 4 |
|---|------|------|------|------|
| Total carpet weight (g/m ²) | 4623 | 4640 | 4493 | 4464 |
| Total thickness (mm) | 7,4 | 7,3 | 7,4 | 7,4 |
| Surface pile weight (g/m ²) | 412 | 413 | 406 | 416 |
| Surface pile thickness (mm) | 3,7 | 3,6 | 3,7 | 3,7 |

II.2 – Characteristics : average values

- * Total carpet weight (g/m²) : 4555 Coefficient of variation: 2,0 %
- * Total thickness (mm) : 7,4
- * Surface pile weight (g/m²) : 412 Coefficient of variation: 1,0 %
- * Surface pile thickness (mm) : 3,7
- * Surface pile density (g/cm³) : 0,112
- * Longitudinal row : 42 row/dm
- * Transversal columns : 46 columns/dm

III – Basic requirement**Hairiness test on Lisson Tretrad (in accordance with NF EN ISO 12951 – test C)**

After 400 cycles on the Lisson Tretrad the hairiness (pilling) is below level of reference photographs.

IV – Classification for wear**Vettermann drum test (in accordance with ISO 10361 – Method A)**

Assessment of appearance change according to EN 1471

After 5000 cycles

- Dominant factor(s) : structure
- Individual evaluation grades of the global change in appearance : 4 – 4 – 4,5
- Individual evaluation grades of the change in colouring : 4/5 – 4/5 – 4/5
- After evaluation of the change in colouring , no correction has been done
- Median value of the grades of global change in appearance: 4
- Median value of the grades of change in colouring (colour change) : 4/5

After 20000 cycles

- Dominant factor(s) : structure
- Individual evaluation grades of the global change in appearance : 3,5 – 3,5 – 3,5
- Individual evaluation grades of the change in colouring : 3/4 – 3/4 – 3/4
- After evaluation of the change in colouring , no correction has been done
- Median value of the grades of global change in appearance: 3,5
- Median value of the grades of change in colouring (colour change) : 3/4

V – Requirements for carpet tiles

V.1 - Dimensions (in accordance with NF EN 994)

⇒ In the longitudinally direction, the average length is 500,3 mm
Difference between the smallest and the largest average length : 0,1 mm

⇒ In the transversally direction, the average length is 500,2 mm
Difference between the smallest and the largest average length : 0,1 mm

V.2 – Squareness and straightness of edges (in accordance with NF EN 994)

The maximum deviation for each edge of each tile is the follow:

- ♦ Tile N° 1 : 0,3 mm (SQ) – 0,4 mm (SQ) – 0,3 mm (SQ) – 0,3 mm (SQ)
- ♦ Tile N° 2 : 0,2 mm (SQ) – 0,3 mm (SQ) – 0,3 mm (SQ) – 0,3 mm (SQ)
- ♦ Tile N° 3 : 0,3 mm (SQ) – 0,4 mm (SQ) – 0,3 mm (SQ) – 0,3 mm (SQ)
- ♦ Tile N° 4 : 0,2 mm (SQ) – 0,3 mm (SQ) – 0,3 mm (SQ) – 0,3 mm (SQ)
- ♦ Tile N° 5 : 0,3 mm (SQ) – 0,2 mm (SQ) – 0,3 mm (SQ) – 0,3 mm (SQ)

(SQ) : Squareness – (ST) : Straightness

Deviation D= 0,08%

V.3 – Dimensional stability (in accordance with NF EN 986)

| Test specimen | Direction | Extension (%) | Shrinkage (%) |
|---------------|------------------|---------------|---------------|
| 1 | ♦ Longitudinally | + 0,01 | - 0,16 |
| | ♦ Transversally | + 0,03 | - 0,13 |
| 2 | ♦ Longitudinally | + 0,01 | - 0,15 |
| | ♦ Transversally | + 0,01 | - 0,11 |
| 3 | ♦ Longitudinally | + 0,01 | - 0,17 |
| | ♦ Transversally | + 0,03 | - 0,11 |

The average deviation on three tests specimens is:

Shrinkage:

Longitudinally : – 0,16%

Transversally : – 0,12%

Extension :

Longitudinally : + 0,01%

Transversally : + 0,02%

You will find the complete results in the test report RL 2017/244-2.

V.4 – Distortion out of plane (curling) (in accordance with NF EN 986)

The maximal deviation of any part of the sample from its plane is:

Test specimen 1 : 0,5 mm convex curling

Test specimen 2 : 0,5 mm convex curling

Test specimen 3 : 0,5 mm convex curling

V.5 – Damage at cut edge (in accordance with NF EN 1814)

After 11 000 cycles in the modified Vettermann drum we don't see damages of edges.

VI – Additional performances properties**VI.1- Castor chair suitability (in accordance with NF EN 985 – Method A)**Assessment of appearance change according to EN 1471

- ♦ Median appearance retention after 5000 cycles : 3
- ♦ Median appearance retention after 25 000 cycles : 2,5

Index r = 2,9

The sample meets the requirement for **A: suitable for intensive use**

VI.2 – Fraying behaviour (in accordance with NF EN 1814)

After 11 000 cycles in the modified Vettermann drum we don't see sprouting, delamination and loss of loop.

The sample is considered as **« Resistant to fraying »**.

End of rapport