



Report 52501 Test Report

Applicant

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ÖSTERREICH

Reference

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Application

Determination of maximum force and wrinkle recovery.

Test Material

"Bühnensamte"

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: 5

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Ing. Judith Pointner

Authorised for technical group, authorised to sign,
Ing. Peter Trappl

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Dipl.-Ing. Dr. Erich Zippel

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1 Order

1.1 Chronology

| Date | Received | Order |
|------------|------------|--|
| 2006-06-19 | 2006-06-20 | Determination of maximum force and wrinkle recovery. |

1.2 Samples

| No. | Received | Sample Identification | Sample Material |
|-----|----------------|-----------------------|---|
| 1 | 2006-06-20 (1) | "Bühnensamt BACH" | Textile fabric, approx. 1 running meter |
| 2 | 2006-06-20 (1) | "Bühnensamt HAYDN" | Textile fabric, approx. 1 running meter |
| 3 | 2006-06-20 (1) | "Bühnensamt MIDNIGHT" | Textile fabric, approx. 1 running meter |
| 4 | 2006-06-20 (1) | "Bühnensamt LEHAR" | Textile fabric, approx. 1 running meter |

(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

Tested sample: 1

Type of fibre according to DIN 60 001 part 1: 100 % cotton (declaration by the applicant)
Mass per unit area: 350 g/m² (declaration by the applicant)
Technological description: pile woven fabric

Tested sample: 2

Type of fibre according to DIN 60 001 part 1: 100 % cotton (declaration by the applicant)
Mass per unit area: 550 g/m² (declaration by the applicant)
Technological description: pile woven fabric

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Tested sample: 3

Type of fibre according to DIN 60 001 part 1: 100 % cotton (declaration by the applicant)
Mass per unit area: 570 g/m² (declaration by the applicant)
Technological description: pile woven fabric

Tested sample: 4

Type of fibre according to DIN 60 001 part 1: 100 % polyester (Trevira CS®)
(declaration by the applicant)
Mass per unit area: 520 g/m² (declaration by the applicant)
Technological description: pile woven fabric

2.2 Determination of maximum force and elongation at maximum force - Strip method

Test conditions

According to EN ISO 13934 Part 1

Condition of specimens: conditioned (dry)
Nominal gauge length: 200 mm
Rate of extension: 100 mm/min
Pre-Tension: sample 1: 5 N
sample 2, 3 u. 4: 10 N

Width of strips: 50 mm
Number of specimens: each 5

Test results

Tested sample: 1

| | Maximum force | | Elongation at maximum force | |
|-------------------------------|---------------|----------|-----------------------------|----------|
| Warp direction | | | | |
| Mean value | 250 | N | 7,3 | % |
| Coefficient of variation | 2,1 | % | 3,8 | % |
| Confidence Interval (P = 95%) | ± 7 | N | ± 0,3 | % |
| Weft direction | | | | |
| Mean value | 386 | N | 11,7 | % |
| Coefficient of variation | 2,2 | % | 2,3 | % |
| Confidence Interval (P = 95%) | ± 11 | N | ± 0,3 | % |

Tested sample: 2

| | Maximum force | | Elongation at maximum force | |
|-------------------------------|---------------|----------|-----------------------------|----------|
| Warp direction | | | | |
| Mean value | 370 | N | 8,4 | % |
| Coefficient of variation | 2,4 | % | 2,7 | % |
| Confidence Interval (P = 95%) | ± 11 | N | ± 0,3 | % |
| Weft direction | | | | |
| Mean value | 490 | N | 10,4 | % |
| Coefficient of variation | 1,7 | % | 7,0 | % |
| Confidence Interval (P = 95%) | ± 11 | N | | |

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Tested sample: 3

| | Maximum force | | Elongation at maximum force | |
|-------------------------------|---------------|----------|-----------------------------|----------|
| Warp direction | | | | |
| Mean value | 770 | N | 9,4 | % |
| Coefficient of variation | 2,0 | % | 2,4 | % |
| Confidence interval (P = 95%) | ± 19 | N | ± 0,3 | % |
| Weft direction | | | | |
| Mean value | 1030 | N | 10,5 | % |
| Coefficient of variation | 2,0 | % | 0,0 | % |
| Confidence interval (P = 95%) | ± 26 | N | ± 0,0 | % |

Tested sample: 4

| | Maximum force | | Elongation at maximum force | |
|-------------------------------|---------------|----------|-----------------------------|----------|
| Warp direction | | | | |
| Mean value | 1370 | N | 18,0 | % |
| Coefficient of variation | 1,1 | % | 1,2 | % |
| Confidence interval (P = 95%) | ± 19 | N | ± 0,3 | % |
| Weft direction | | | | |
| Mean value | 1140 | N | 25,3 | % |
| Coefficient of variation | 4,2 | % | 2,3 | % |
| Confidence interval (P = 95%) | ± 60 | N | ± 0,7 | % |

2.3 Determination of wrinkle recovery of fabrics (appearance method)

Test Conditions

Standard: AATCC 128-1977
Test equipment: AATCC 128-1977 wrinkle tester
Load: 3,5 kg
Loading period: 20 minutes
Number of samples: each 3

Test Results

Tested sample: 1

| | Wrinkle appearance after 24 hours of recovery |
|----------------------------------|--|
| Fabric smoothness rating: | Rating 4 |

Tested sample: 2

| | Wrinkle appearance after 24 hours of recovery |
|----------------------------------|--|
| Fabric smoothness rating: | Rating 4 |

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Tested sample: 3

| | |
|----------------------------------|--|
| | Wrinkle appearance after 24 hours of recovery |
| Fabric smoothness rating: | Rating 4-5 |

Tested sample: 4

| | |
|----------------------------------|--|
| | Wrinkle appearance after 24 hours of recovery |
| Fabric smoothness rating: | Rating 5 |

Note: The assessment was made with a 5 grade assessment scale. Rating 1 means a very high grade of wrinkle and rating 5 means a low grade of wrinkle.

3 Remarks

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.

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