

Investigation report

SAHCO GmbH
Fr. Sarah Kemmerer
Kreuzburger Str 17-19

90471 Nürnberg

DELCOTEX
Delius Techtex GmbH & Co. KG
Vilsendorfer Str. 50
33739 Bielefeld
Germany

Homepage: www.textillabor.eu

Contact: Detlef von Seyfried
Division: Laboratory/ Lab Manager
Phone: +49 (0) 52 06 / 91 07 - 57
Fax: +49 (0) 52 06 / 91 07 - 34

Date: 26.11.2018

Investigation report No. 18-E-624

order description: **Abrasion resistance DIN EN ISO 12947-2 (2017-03) according to Martindale method (specimen breakdown); Determination of fabric propensity to surface fuzzing and to pilling - Part 2: Modified Martindale method ISO 12945 (2000-11) in accordance to DIN EN 14465 (2006-09); Seam slippage resistance DIN EN ISO 13936-2 (2004-07) method B**

sample: 600167 Proof 2766
sampling: by orderer
orderer: see address
date of order: 21.09.2018
date of delivery: 22.10.2018
date of testing: 21.11.2018
number of pages: 4

Remark:

The results are valid only for the tested object. The accreditation applies for the methods listed in the annex to the certificate D-PL-17323-01-00. Accredited test methods are underlined. The valuations and Interpretations in the investigation report are not subject to accreditation. Tests conducted through co-operation partners are marked with °. The content of this investigation report will not be passed to third persons without written approval of the orderer. The partial publication of the test report, as well as the usage for commercial process, is only allowed with a permission of the DELCOTEX Delius Techtex GmbH & Co. KG. Remnants of test material will be destroyed after 3 months. Previously stated specifications / data sheets / certificates are only characters and no warranties. Also no warranty in case of durability will be overtaken. Finally our general delivery and payment conditions are valid (please see www.textillabor.eu).



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Instructions for performing

1. Method: **Abrasion resistance DIN EN ISO 12947-2 (2017-03) according to Martindale method (specimen breakdown) in accordance to DIN EN 14465 (2006-09)**

2. Measuring conditions

tester:	Martindale – abrasion tester
abrasive:	wool fabric
nominal pressure:	12 kPa
scrubbing:	795 +/- 7 g
room temperature:	20 +/- 2 °C
humidity:	65 +/- 4 %
number of observers:	2
observation technology:	8-magnification

Test results

Article: **600167 Proof 2766**

weight:	452 g/m ²
sample condition:	new
foam:	yes
pretreatment:	no

	Number of Cycles	Mark
	Change of colour after 3000 cycles	3-4
Sample 1	80.000	
Sample 2	80.000	
Sample 3	80.000	
Sample 4	80.000	
result	80.000	

* Final grading refers to change of colour under use of greyscale according to ISO 105-A02.
 Mark 10 strong change of colour, Mark 5 = no change of colour.

Remark: According to DIN EN 14465 (2006-09) the article, in reference to abrasion resistance in furnishing fabrics, the article is ranked within **category A**.

on customer request , broken off after 80.000 cycles.

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Instructions for performing

- 3. Method: Determination of fabric propensity to surface fuzzing and to pilling - Part 2: Modified Martindale method ISO 12945 (2000-11) in accordance to DIN EN 14465 (2006-09)**

4. Measuring conditions

tester:	Martindale-tester
abrasive:	wool-abrasive
pressure weight:	415 +/- 1 g
Test temperature:	20 +/- 2 °C
Test humidity:	65 +/- 4 %
Number of specimen:	3
Number of observers:	2
pretreatment:	No

Test results

Article: 600167 Proof 2766

Number of cycles	Mark*
500	4-5
1.000	4-5
2.000	4
5.000	4

Remark: According to to DIN EN 14465 (2006-09) in reference to pilling tendencies of furnishing fabrics, the article is ranked within **category B**.

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Instructions for performing

5. Method: Seam slippage resistance DIN EN ISO 13936-2 (2004-07) method B

6. Measuring conditions:

Type: furnishing fabric
Tensile force: 180 N

Test results

Article: 600167 Proof 2766

	Seam opening [mm]
Warp direction (seamline weft direction)	2,2
Weft direction (seamline warp direction)	4,3



i. A. Detlef von Seyfried
Labor/Laboratory
DELCOTEX Delius Tectex GmbH & Co. KG

Only the information contained in the signed test report is binding.

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Appendix

Article: 600167 Proof 2766

Method: Abrasion resistance DIN EN ISO 12947-2 (2017-03)
according to Martindale method (specimen breakdown) in accordance
to DIN EN 14465 (2006-09)



80.00 **Sample 1**
Cycles



80.00 **Sample 2**
Cycles



80.00 **Sample 3**
Cycles



80.00 **Sample 4**
Cycles

Original



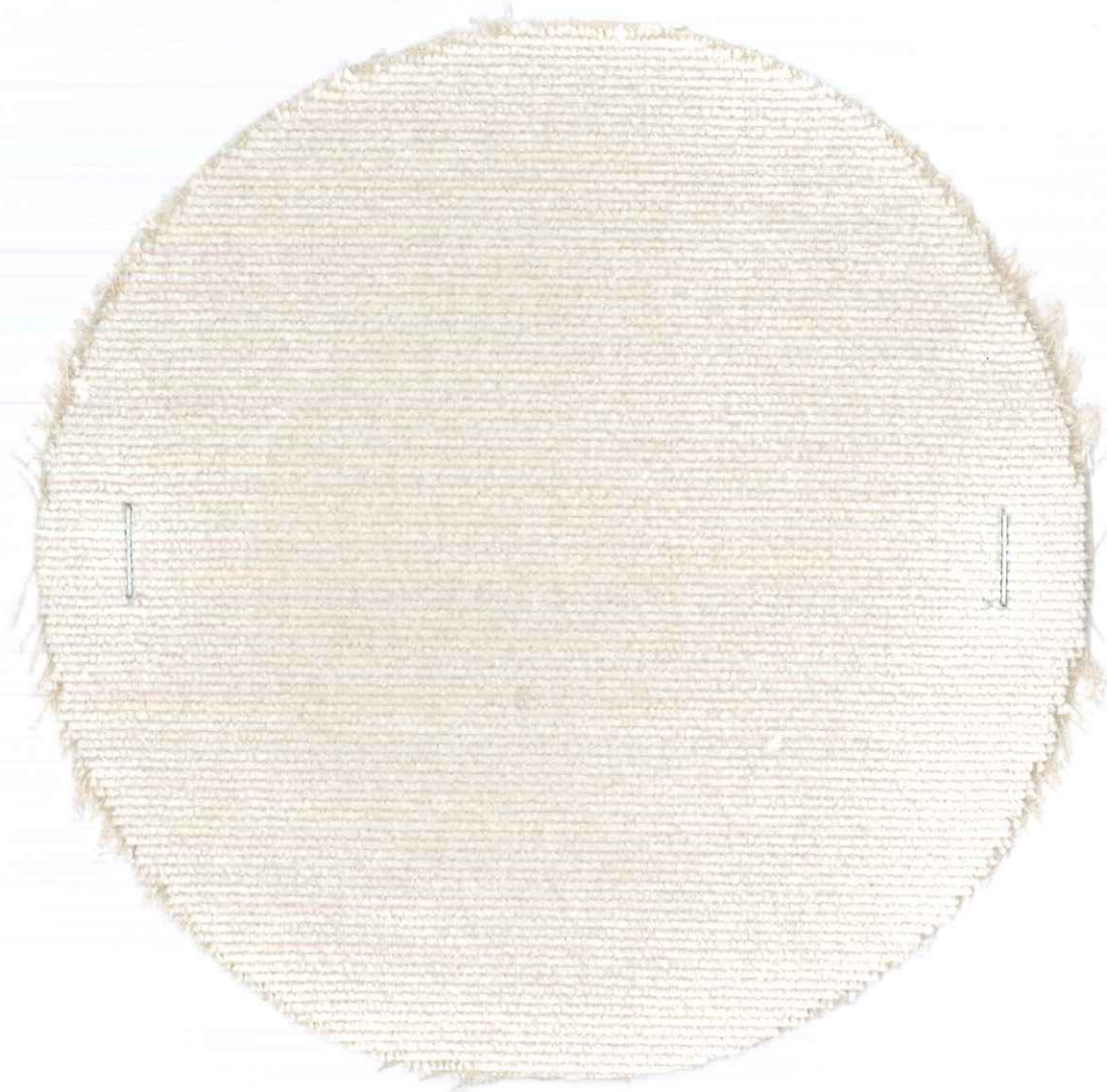
COC after 3000 cycles *3-4*

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Appendix

Article: 600167 Proof 2766

Method: Determination of fabric propensity to surface fuzzing and to pilling - Part 2: Modified Martindale method ISO 12945 (2000-11) in accordance to DIN EN 14465 (2006-09)



Number of cycles	Mark*
500	4-5
1.000	4-5
2.000	4
5.000	4

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Appendix

Article: 600167 Proof 2766

Method: Determination of fabric propensity to surface fuzzing and to pilling - Part 2: Modified Martindale method ISO 12945 (2000-11) in accordance to DIN EN 14465 (2006-09)



Number of cycles	Mark*
500	4-5
1.000	4-5
2.000	4
5.000	4

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Appendix

Article: 600167 Proof 2766

Method: Determination of fabric propensity to surface fuzzing and to pilling - Part 2: Modified Martindale method ISO 12945 (2000-11) in accordance to DIN EN 14465 (2006-09)



Number of cycles	Mark*
500	4-5
1.000	4-5
2.000	4
5.000	4