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Your notice of Your reference Date
12-05-2014 23-05-2014

Analysis Report 14.02375.01

Required tests:

ISO 12947-2 (1998)/cor.1 (2002)

Determination of the abrasion resistance - Martindale
Determination of the colour fastness to rubbing
Determination of the resistance to pilling - Martindale
EN ISO 105-B02 (1999) + Am (2002)

Determination of the colour fastness to light

Identification number	Information given by the client	Date of receipt
T1408189	Sprinkles FW932 933-953-61-35	12-05-2014

Filip Ghekiere

Order responsible

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The results of the analysis cover the received samples. Centexbel is not responsible for the representativeness of the samples. In assessing compliance with the specifications, we did not take into account the uncertainty on the test results.

VAT BE 0459.218.289

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Date 23-05-2014

Page 2/5

Reference: T1408189 - Sprinkles FW932 933-953-61-35

Determination of the abrasion resistance - Martindale

Date of ending the test 20-05-2014

Standard used ISO 12947-2 (1998)/cor.1 (2002)

Deviation from the standard

20°C, relative humidity 65% Conditioning

Martindale Wear and Abrasion Tester Apparatus

Pressure on test specimen 12 kPa

Abradant Crossbred worsted spun, plain woven fabric

Type of the felt Woven felt

Number of test specimens 4

Test end point

Knitted - 1 loop completely damaged

Specimen	Number of cycles	Final result	
#1	100 000	≥ 100 000	
#2	100 000	≥ 100 000	
#3	100 000	≥ 100 000	
#4	100 000	$\geq 100~000$	
Average	100 000	≥ 100 000	

Annex 1

Tested specimens enclosed

Performed in the physical lab Ghent under the responsibility of Filip Ghekiere

Date 23-05-2014 **Page** 3/5

Reference: T1408189 - Sprinkles FW932 933-953-61-35

Determination of the colour fastness to rubbing

Date of ending the test 23-05-2014

Standard used ISO 105-X12 (2001)

Deviation from the standard -

Conditioning 20°C, relative humidity 65%

Apparatus Crockmeter
Applied finger Ø 16 mm

Pressure on test specimen 9 N Number of cycles 10

Assessment of staining according to the grey scales (ISO 105 A03)

Numerical rating

	Wales direction	Course direction
Dry	4-5	4-5
Wet	4	4

Date 23-05-2014

4/5 Page

Reference: T1408189 - Sprinkles FW932 933-953-61-35

Determination of the resistance to pilling - Martindale

Date of ending the test 22-05-2014

Standard used ISO 12945-2 (2000)

Deviation from the standard

Conditioning 20°C, relative humidity 65%

Martindale Wear and Abrasion Tester Apparatus

Pressure on test specimen 6,5 cN/cm²

Original material Abradant

Number of test specimens Number of assessors 2

	Assessment at number of cycles					
	500	1000	2000	5000		
#1	4-5	4-5	4-5	4		
#2	4-5	4-5	4-5	4		
#3	4-5	4-5	4-5	4		

The final assessment is based on Pilling

Annex 2 Pilling samples in attachment

Performed in the physical lab Ghent under the responsibility of Filip Ghekiere

Date 23-05-2014 **Page** 5/5

Reference: T1408189 - Sprinkles FW932 933-953-61-35

Determination of the colour fastness to light

Date of ending the test 23-05-2014

Standard used EN ISO 105-B02 (1999) + Am (2002)

Deviation from the standard - Method 1

Apparatus Xenotest 220+ Atlas

Exposure Constant

Irradiance 42 W/m² @ 300-400 nm

Black standard temperature 47 ± 3 °C Effective humidity $\pm40\%$

Assessment according the blue scale standard

Numerical rating Blue scale grade 7

Annex 3 Exposed sample in annex