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**Your notice of**  
19-04-2018

**Your reference**

**Date**  
08-05-2018

## Analysis Report 18.02345.01

Required tests :

**ISO 105-E16 (2006)**  
**ISO 105-E04 (2013)**  
**ISO 105-D01 (2010)**  
**ISO 105-C06 (2010)**

**Determination of the colour fastness to spotting: water**  
**Determination of the colour fastness to perspiration**  
**Determination of the colour fastness to dry cleaning**  
**Determination of the colour fastness to domestic and commercial laundering**

Identification number	Information given by the client	Date of receipt
T1809532	Zanzibar 7008	19-04-2018
T1809533	Togo 7031	19-04-2018
T1809534	Ariana 7029	19-04-2018
T1809535	Ponza 7027	19-04-2018

Eddy Albrecht

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.

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**Reference: T1809532 - Zanzibar 7008**

**Determination of the colour fastness to spotting: water**

Date of ending the test 07-05-2018  
Standard used ISO 105-E16 (2006)

Deviation from the standard -

Results  
Evaluation using grey scales

	Numerical rating
Change in colour of the specimen, inside the spot	5
Change in colour of the specimen, at the edge of the spot	5

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.

**Reference: T1809532 - Zanzibar 7008**

**Determination of the colour fastness to perspiration**

Date of ending the test 07-05-2018  
Standard used ISO 105-E04 (2013)

Deviation from the standard  
Apparatus Perspirometer

**Results**

**Alkaline solution**

Numerical rating	
Change in colour	4-5
Staining on cotton	4
Staining on wool	4

**Acid solution**

Numerical rating	
Change in colour	4-5
Staining on cotton	4
Staining on wool	4-5

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.

**Reference: T1809532 - Zanzibar 7008**

**Determination of the colour fastness to dry cleaning**

Date of ending the test 07-05-2018  
Standard used ISO 105-D01 (2010)

Apparatus Gyrowash  
Solvent Tetrachloroethylene

Results

Monofibre

Numerical rating	
Change in colour	5
Staining on cotton	5
Staining on wool	5

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.

**Reference: T1809532 - Zanzibar 7008**

**Determination of the colour fastness to domestic and commercial laundering**

Date of ending the test 07-05-2018  
Standard used ISO 105-C06 (2010)  
  
Deviation from the standard 30°C instead of 40°C  
Apparatus Gyrowash  
Detergent ECE reference detergent  
Wash procedure Method A2S  
Temperature 30°C  
Use of steel balls Yes, number :10  
Treatment in acetic acid reagent No

**Results**

**Monofibre**

Numerical rating	
Change in colour	4-5
Staining on cotton	4
Staining on wool	3-4

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.

**Reference: T1809532 - Zanzibar 7008**

**Determination of the colour fastness to domestic and commercial laundering**

Date of ending the test 07-05-2018  
Standard used ISO 105-C06 (2010)

Apparatus Gyrowash  
Detergent ECE reference detergent  
Wash procedure Method C2S  
Temperature 60°C  
Use of steel balls Yes, number :10  
Treatment in acetic acid reagent No

**Results**

**Monofibre**

Numerical rating	
Change in colour	4
Staining on cotton	3
Staining on viscose	3

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.

**Reference: T1809532 - Zanzibar 7008**

**Determination of the colour fastness to domestic and commercial laundering**

Date of ending the test 07-05-2018  
Standard used ISO 105-C06 (2010)

Apparatus Gyrowash  
Detergent ECE reference detergent  
Wash procedure Method B2S  
Temperature 50°C  
Use of steel balls Yes, number :10  
Treatment in acetic acid reagent No

**Results**

**Monofibre**

Numerical rating	
Change in colour	4
Staining on cotton	3-4
Staining on viscose	3-4

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.

**Reference: T1809532 - Zanzibar 7008**

**Determination of the colour fastness to domestic and commercial laundering**

Date of ending the test 07-05-2018  
Standard used ISO 105-C06 (2010)

Apparatus Gyrowash  
Detergent ECE reference detergent  
Wash procedure Method D2S  
Temperature 70°C  
Use of steel balls Yes, number :10  
Treatment in acetic acid reagent No

**Results**

**Monofibre**

Numerical rating	
Change in colour	3-4
Staining on cotton	2-3
Staining on viscose	3

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.



**Reference: T1809533 - Togo 7031**

**Determination of the colour fastness to spotting: water**

Date of ending the test 07-05-2018  
Standard used ISO 105-E16 (2006)

Deviation from the standard -

Results  
Evaluation using grey scales

	Numerical rating
Change in colour of the specimen, inside the spot	4-5
Change in colour of the specimen, at the edge of the spot	4-5

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.

**Reference: T1809533 - Togo 7031**

**Determination of the colour fastness to perspiration**

Date of ending the test 07-05-2018  
Standard used ISO 105-E04 (2013)

Deviation from the standard  
Apparatus Perspirometer

**Results**

**Alkaline solution**

Numerical rating	
Change in colour	4-5
Staining on cotton	2-3
Staining on wool	3

**Acid solution**

Numerical rating	
Change in colour	4-5
Staining on cotton	3
Staining on wool	3-4

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.

**Reference: T1809533 - Togo 7031**

**Determination of the colour fastness to dry cleaning**

Date of ending the test 07-05-2018  
Standard used ISO 105-D01 (2010)

Apparatus Gyrowash  
Solvent Tetrachloroethylene

**Results**

**Monofibre**

Numerical rating	
Change in colour	4-5
Staining on cotton	4-5
Staining on wool	4-5

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.

**Reference: T1809533 - Togo 7031**

**Determination of the colour fastness to domestic and commercial laundering**

Date of ending the test 08-05-2018  
Standard used ISO 105-C06 (2010)  
  
Deviation from the standard 30°C instead of 40°C  
Apparatus Gyrowash  
Detergent ECE reference detergent  
Wash procedure Method A2S  
Temperature 30°C  
Use of steel balls Yes, number :10  
Treatment in acetic acid reagent No

**Results**

**Monofibre**

Numerical rating	
Change in colour	4-5
Staining on cotton	3
Staining on wool	3

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.

**Reference: T1809533 - Togo 7031**

**Determination of the colour fastness to domestic and commercial laundering**

Date of ending the test 08-05-2018  
Standard used ISO 105-C06 (2010)

Apparatus Gyrowash  
Detergent ECE reference detergent  
Wash procedure Method B2S  
Temperature 50°C  
Use of steel balls Yes, number :10  
Treatment in acetic acid reagent No

**Results**

**Monofibre**

Numerical rating	
Change in colour	4
Staining on cotton	2-3
Staining on viscose	2-3

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.

**Reference: T1809533 - Togo 7031**

**Determination of the colour fastness to domestic and commercial laundering**

Date of ending the test 08-05-2018  
Standard used ISO 105-C06 (2010)

Apparatus Gyrowash  
Detergent ECE reference detergent  
Wash procedure Method C2S  
Temperature 60°C  
Use of steel balls Yes, number :10  
Treatment in acetic acid reagent No

**Results**

**Monofibre**

Numerical rating	
Change in colour	3-4
Staining on cotton	2
Staining on viscose	2

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.

**Reference: T1809533 - Togo 7031**

**Determination of the colour fastness to domestic and commercial laundering**

Date of ending the test 08-05-2018  
Standard used ISO 105-C06 (2010)

Apparatus Gyrowash  
Detergent ECE reference detergent  
Wash procedure Method D2S  
Temperature 70°C  
Use of steel balls Yes, number :10  
Treatment in acetic acid reagent No

**Results**

**Monofibre**

Numerical rating	
Change in colour	3
Staining on cotton	1-2
Staining on viscose	1-2

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.

**Reference: T1809534 - Ariana 7029**

**Determination of the colour fastness to spotting: water**

Date of ending the test 07-05-2018  
Standard used ISO 105-E16 (2006)

Deviation from the standard -

Results  
Evaluation using grey scales

	Numerical rating
Change in colour of the specimen, inside the spot	3-4
Change in colour of the specimen, at the edge of the spot	3-4

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.



**Reference: T1809534 - Ariana 7029**

**Determination of the colour fastness to perspiration**

Date of ending the test 08-05-2018  
Standard used ISO 105-E04 (2013)

Deviation from the standard  
Apparatus Perspirometer

**Results**

**Alkaline solution**

Numerical rating	
Change in colour	4-5
Staining on cotton	4-5
Staining on wool	4-5

**Acid solution**

Numerical rating	
Change in colour	4-5
Staining on cotton	4-5
Staining on wool	4-5

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.

**Reference: T1809534 - Ariana 7029**

**Determination of the colour fastness to dry cleaning**

Date of ending the test 07-05-2018  
Standard used ISO 105-D01 (2010)

Apparatus Gyrowash  
Solvent Tetrachloroethylene

Results

Monofibre

Numerical rating	
Change in colour	5
Staining on cotton	4-5
Staining on wool	5

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.

**Reference: T1809534 - Ariana 7029**

**Determination of the colour fastness to domestic and commercial laundering**

Date of ending the test 08-05-2018  
Standard used ISO 105-C06 (2010)

Deviation from the standard 30°C instead of 40°C  
Apparatus Gyrowash  
Detergent ECE reference detergent  
Wash procedure Method A2S  
Temperature 30°C  
Use of steel balls Yes, number :10  
Treatment in acetic acid reagent No

**Results**

**Monofibre**

Numerical rating	
Change in colour	4-5
Staining on cotton	3-4
Staining on wool	4

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.

**Reference: T1809534 - Ariana 7029**

**Determination of the colour fastness to domestic and commercial laundering**

Date of ending the test 08-05-2018  
Standard used ISO 105-C06 (2010)

Apparatus Gyrowash  
Detergent ECE reference detergent  
Wash procedure Method B2S  
Temperature 50°C  
Use of steel balls Yes, number :10  
Treatment in acetic acid reagent No

**Results**

**Monofibre**

Numerical rating	
Change in colour	4-5
Staining on cotton	3-4
Staining on viscose	3-4

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.

**Reference: T1809534 - Ariana 7029**

**Determination of the colour fastness to domestic and commercial laundering**

Date of ending the test 08-05-2018  
Standard used ISO 105-C06 (2010)

Apparatus Gyrowash  
Detergent ECE reference detergent  
Wash procedure Method C2S  
Temperature 60°C  
Use of steel balls Yes, number :10  
Treatment in acetic acid reagent No

**Results**

**Monofibre**

Numerical rating	
Change in colour	4-5
Staining on cotton	3
Staining on viscose	3

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.

**Reference: T1809534 - Ariana 7029**

**Determination of the colour fastness to domestic and commercial laundering**

Date of ending the test 08-05-2018  
Standard used ISO 105-C06 (2010)

Apparatus Gyrowash  
Detergent ECE reference detergent  
Wash procedure Method D2S  
Temperature 70°C  
Use of steel balls Yes, number :10  
Treatment in acetic acid reagent No

**Results**

**Monofibre**

Numerical rating	
Change in colour	4-5
Staining on cotton	2-3
Staining on viscose	2-3

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.

**Reference: T1809535 - Ponza 7027**

**Determination of the colour fastness to spotting: water**

Date of ending the test 07-05-2018  
Standard used ISO 105-E16 (2006)

Deviation from the standard -

Results  
Evaluation using grey scales

	Numerical rating
Change in colour of the specimen, inside the spot	5
Change in colour of the specimen, at the edge of the spot	5

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.

**Reference: T1809535 - Ponza 7027**

**Determination of the colour fastness to perspiration**

Date of ending the test 08-05-2018  
Standard used ISO 105-E04 (2013)

Deviation from the standard  
Apparatus Perspirometer

Results

Alkaline solution

Numerical rating	
Change in colour	4-5
Staining on polyester	5
Staining on cotton	5

Acid solution

Numerical rating	
Change in colour	4-5
Staining on polyester	5
Staining on cotton	5

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.



**Reference: T1809535 - Ponza 7027**

**Determination of the colour fastness to dry cleaning**

Date of ending the test 07-05-2018  
Standard used ISO 105-D01 (2010)

Apparatus Gyrowash  
Solvent Tetrachloroethylene

Results

Monofibre

Numerical rating	
Change in colour	4-5
Staining on polyester	4-5
Staining on cotton	5

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.

**Reference: T1809535 - Ponza 7027**

**Determination of the colour fastness to domestic and commercial laundering**

Date of ending the test 08-05-2018  
Standard used ISO 105-C06 (2010)

Deviation from the standard 30°C instead of 40°C  
Apparatus Gyrowash  
Detergent ECE reference detergent  
Wash procedure Method A2S  
Temperature 30°C  
Use of steel balls Yes, number :10  
Treatment in acetic acid reagent No

**Results**

**Monofibre**

Numerical rating	
Change in colour	5
Staining on polyester	5
Staining on cotton	5

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.

**Reference: T1809535 - Ponza 7027**

**Determination of the colour fastness to domestic and commercial laundering**

Date of ending the test 08-05-2018  
Standard used ISO 105-C06 (2010)

Apparatus Gyrowash  
Detergent ECE reference detergent  
Wash procedure Method B2S  
Temperature 50°C  
Use of steel balls Yes, number :10  
Treatment in acetic acid reagent No

**Results**

**Monofibre**

Numerical rating	
Change in colour	4-5
Staining on polyester	5
Staining on cotton	5

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.

**Reference: T1809535 - Ponza 7027**

**Determination of the colour fastness to domestic and commercial laundering**

Date of ending the test 08-05-2018  
Standard used ISO 105-C06 (2010)

Apparatus Gyrowash  
Detergent ECE reference detergent  
Wash procedure Method C2S  
Temperature 60°C  
Use of steel balls Yes, number :10  
Treatment in acetic acid reagent No

**Results**

**Monofibre**

Numerical rating	
Change in colour	4-5
Staining on polyester	5
Staining on cotton	5

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.

**Reference: T1809535 - Ponza 7027**

**Determination of the colour fastness to domestic and commercial laundering**

Date of ending the test 08-05-2018  
Standard used ISO 105-C06 (2010)

Apparatus Gyrowash  
Detergent ECE reference detergent  
Wash procedure Method D2S  
Temperature 70°C  
Use of steel balls Yes, number :10  
Treatment in acetic acid reagent No

**Results**

**Monofibre**

Numerical rating	
Change in colour	4-5
Staining on polyester	5
Staining on cotton	5

Grading against grey scale for change in colour and/or staining:

Use of a 9 point scale from 5 to 1; where 5 is excellent and 1 is poor. Intermediate values like 2-3 are possible.