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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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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.