

**2024CN0225**

## TEST REPORT

### DATE OF RECEPTION

*Date Format: dd/MM/yyyy* 20/03/2024

### APPLICANT

### DATE OF TESTS

Starting : 21/03/2024

Ending: 30/04/2024

China

### REFERENCE OF SAMPLES

Reference by AITEX	Reference by customer	AITEX sample description
2024CN0225-S01	Recycled Birdeye Fabric JS001/ JS002	Fabric
2024CN0225-S02	Recycled Birdeye Fabric JS001	Fabric
2024CN0225-S03	Recycled Birdeye Fabric JS002	Fabric

### TESTS CARRIED OUT

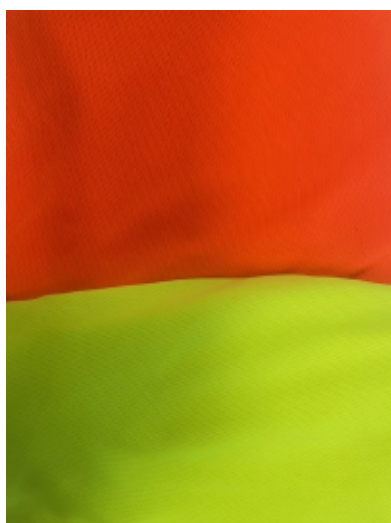
- DETERMINATION OF COORDINATES (x,y,Y)
- COLOUR FASTNESS TO RUBBING
- COLOUR FASTNESS TO PERSPIRATION
- COLOUR FASTNESS TO DOMESTIC AND COMMERCIAL LAUNDERING
- BURSTING RESISTANCE
- DETERMINATION OF DIMENSIONAL CHANGE IN WASHING AND DRYING
- WATER VAPOUR RESISTANCE
- PRE-TREATMENT FOR DOMESTIC WASHING AND DRYING PROCEDURES FOR TEXTILE TESTING

Tests marked with \* are not included within the scope of the accreditation.





## DESCRIPTION OF SAMPLES



**Reference by AITEX:** 2024CN0225-S01

**Reference by customer:**

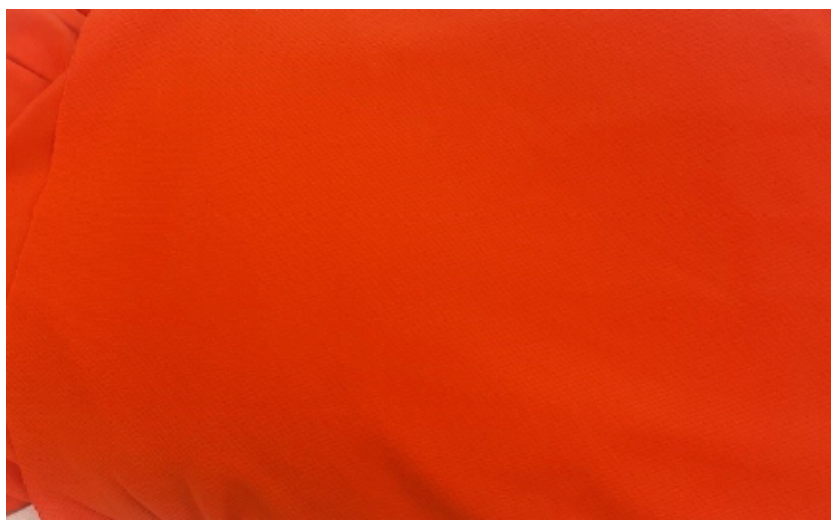
Recycled Birdeye Fabric JS001/ JS002

**Information supplied by the customer**

Composition and percentage: 100%polyester

Color: orange, yellow

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**Reference by AITEX:** 2024CN0225-S02

**Reference by customer:**



Recycled Birdeye Fabric JS001

**Information supplied by the customer**

Composition and percentage: 100%polyester  
Color: orange

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**Reference by AITEX:** 2024CN0225-S03

**Reference by customer:**

Recycled Birdeye Fabric JS002

**Information supplied by the customer**

Composition and percentage: 100%polyester  
Color: yellow

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AITEX Subsamples	Subsample Description
2024CN0225-S01_P1	Recycled Birdeye Fabric JS001/ JS002 AFTER 5 WASHES
2024CN0225-S01.1	Recycled Birdeye Fabric JS001 ORANGE
2024CN0225-S01.2	Recycled Birdeye Fabric JS002 YELLOW
2024CN0225-S02_P1	ORANGE JS001 FABRIC AFTER 25 WASHES
2024CN0225-S02_P2	ORANGE JS001 FABRIC AFTER XENON
2024CN0225-S03_P1	YELLOW JS002 FABRIC AFTER 25 WASHES
2024CN0225-S03_P2	YELLOW JS002 FABRIC AFTER XENON



## EXECUTIVE SUMMARY

	Reference	Test/Standard	Result
<b>EN ISO 20471:2013+EN ISO 20471:2013+AMD1: 2016</b>	2024CN0225-S01	BURSTING RESISTANCE EN ISO 13938-2:2019	PASS
		WATER VAPOUR RESISTANCE EN ISO 11092:2014	PASS
	2024CN0225-S01.1	COLOUR FASTNESS TO RUBBING EN ISO 105-X12:2016	PASS
		COLOUR FASTNESS TO PERSPIRATION EN ISO 105-E04:2013	PASS
		COLOUR FASTNESS TO DOMESTIC AND COMMERCIAL LAUNDERING EN ISO 105-C06:2010	PASS
	2024CN0225-S01.1+ 2024CN0225-S02_P1+ 2024CN0225-S02_P2	DETERMINATION OF COORDINATES (x,y,Y) ISO 105-J01:1997	PASS
	2024CN0225-S01.2	COLOUR FASTNESS TO RUBBING EN ISO 105-X12:2016	PASS
		COLOUR FASTNESS TO PERSPIRATION EN ISO 105-E04:2013	PASS
		COLOUR FASTNESS TO DOMESTIC AND COMMERCIAL LAUNDERING EN ISO 105-C06:2010	PASS
	2024CN0225-S01.2+ 2024CN0225-S03_P1+ 2024CN0225-S03_P2	DETERMINATION OF COORDINATES (x,y,Y) ISO 105-J01:1997	PASS
	2024CN0225-S01_P1	DETERMINATION OF DIMENSIONAL CHANGE IN WASHING AND DRYING EN ISO 5077:2008	PASS



## REQUIREMENT SUMMARY

### DETERMINATION OF COORDINATES (x,y,Y)

#### REQUIREMENT ACCORDING EN ISO 20471:2013+EN ISO 20471:2013+AMD1:2016

The chromatic coordinates must be situated within the area defined by the coordinates specified in the Standard EN ISO 20471:2013+EN ISO 20471:2013+AMD1:2016 and the luminance factor shall exceed according to:

Colour	Minimum luminance factor
Yellow	0.70
Orange	0.40
Red	0.25

### COLOUR FASTNESS TO RUBBING

#### REQUIREMENT ACCORDING EN ISO 20471:2013+EN ISO 20471:2013+AMD1:2016

The limit set to Standard for colour fastness to rubbing, is 4, in dry rubbing

### COLOUR FASTNESS TO PERSPIRATION

#### REQUIREMENT ACCORDING EN ISO 20471:2013+EN ISO 20471:2013+AMD1:2016

The limit set to Standard for testing of colour fastness to perspiration, is 4 for degradation and 4 for staining

### COLOUR FASTNESS TO DOMESTIC AND COMMERCIAL LAUNDERING

#### REQUIREMENT ACCORDING EN ISO 20471:2013+EN ISO 20471:2013+AMD1:2016

The limit set to Standard for testing of colour fastness to washing is 4-5 for degradation and 4 for staining.

### BURSTING RESISTANCE

#### REQUIREMENT ACCORDING EN ISO 20471:2013+EN ISO 20471:2013+AMD1:2016

The bursting resistance has to be  $\geq 100$  KPa for 50cm<sup>2</sup> surfaces and  $\geq 200$  KPa for 7.3m<sup>2</sup> surfaces.



## DETERMINATION OF DIMENSIONAL CHANGE IN WASHING AND DRYING

### REQUIREMENT ACCORDING EN ISO 20471:2013+EN ISO 20471:2013+AMD1:2016

The dimensional change shall not exceed  $\pm 3\%$ , both in width warp and in length weft.

The dimensional change of knitted fabrics shall not exceed  $\pm 5\%$ , both in width Crosswise and in length Lengthwise.

## WATER VAPOUR RESISTANCE

### REQUIREMENT ACCORDING EN ISO 20471:2013+EN ISO 20471:2013+AMD1:2016

According to requirement of EN ISO 20471:2013+EN ISO 20471:2013+AMD1:2016 standard, water vapour resistance shall not be higher than  $5 \text{ m}^2 \cdot \text{Pa/W}$ .

## MEANING OF COLOUR FASTNESS APPRAISAL EVALUATED WITH GREY SCALE

VALUE	MEANING
5	VERY GOOD - EXCELLENT
4	GOOD
3	FAIR - MODERATE
2	POOR - BEHAVIOUR
1	VERY POOR

According to standards ISO 105-A02 e ISO 105-A03



## RESULTS

### DETERMINATION OF COORDINATES (x,y,Y)

**Standard**

ISO 105-J01:1997

**Equipment**

Konica Minolta ((0921E06) 400nm-700nm)

**Test date**

<b>Start date</b>	26/3/2024	<b>End date</b>	26/3/2024
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**Conditioned date**

<b>Start date</b>	21/3/2024	<b>End date</b>	26/3/2024
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**Atmosphere for conditioning**

<b>Temperature</b>	(20 ± 2) °C	<b>Relative Humidity</b>	(65 ± 5) %
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**Illuminant**

D65

**Observant**

2°

**Measuring geometry**

45/0

**Specular component and UV filter**

Excluded

**Observation area**

Small

**Number of measurements**

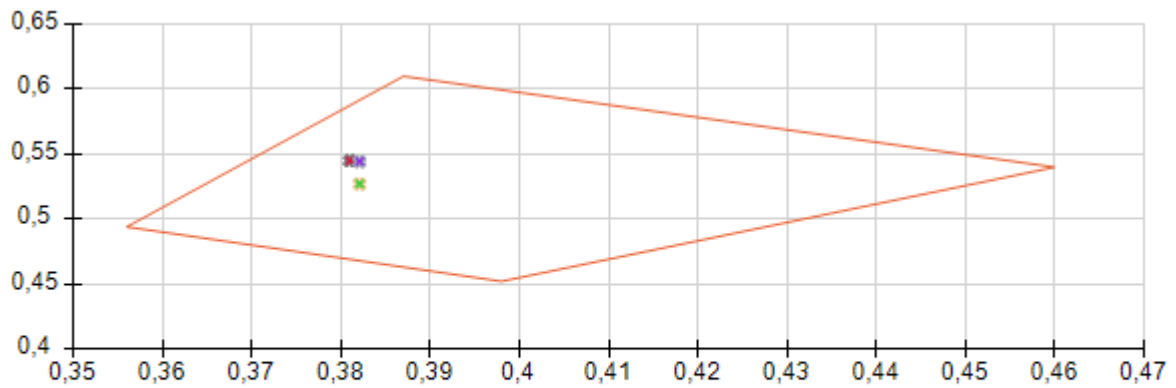
5



**Reference**

2024CN0225-S03\_P1  
 2024CN0225-S03\_P2  
 2024CN0225-S01.2

	x	y	Y minimum
◆Coordinate 1	0,387	0,610	0,70
◆Coordinate 2	0,356	0,494	
◆Coordinate 3	0,398	0,452	
◆Coordinate 4	0,460	0,540	
After 25 washing cycles 4N + F	0,381	0,545	0,87
After exposure to Xenon light	0,382	0,527	0,83
Original	0,382	0,544	0,87
Uncertainty	± 0.4 %	± 0.5 %	± 1 %



◆ Original	◆ 25 cycles, 4N + F
◆ After exposure to Xenon light	

The test was carried out at laboratory located at Carretera Banyeres s/n - 03802 Alcoi, Alicante

Reference	Description
2024CN0225-S03_P1	YELLOW JS002 FABRIC AFTER 25 WASHES
2024CN0225-S03_P2	YELLOW JS002 FABRIC AFTER XENON
2024CN0225-S01.2	Recycled Birdeye Fabric JS002 YELLOW



## RESULTS

### DETERMINATION OF COORDINATES (x,y,Y)

**Standard**

ISO 105-J01:1997

**Equipment**

Konica Minolta ((0921E06) 400nm-700nm)

**Test date**

<b>Start date</b>	26/3/2024	<b>End date</b>	26/3/2024
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**Conditioned date**

<b>Start date</b>	21/3/2024	<b>End date</b>	26/3/2024
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**Atmosphere for conditioning**

<b>Temperature</b>	(20 ± 2) °C	<b>Relative Humidity</b>	(65 ± 5) %
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**Illuminant**

D65

**Observant**

2°

**Measuring geometry**

45/0

**Specular component and UV filter**

Excluded

**Observation area**

Small

**Number of measurements**

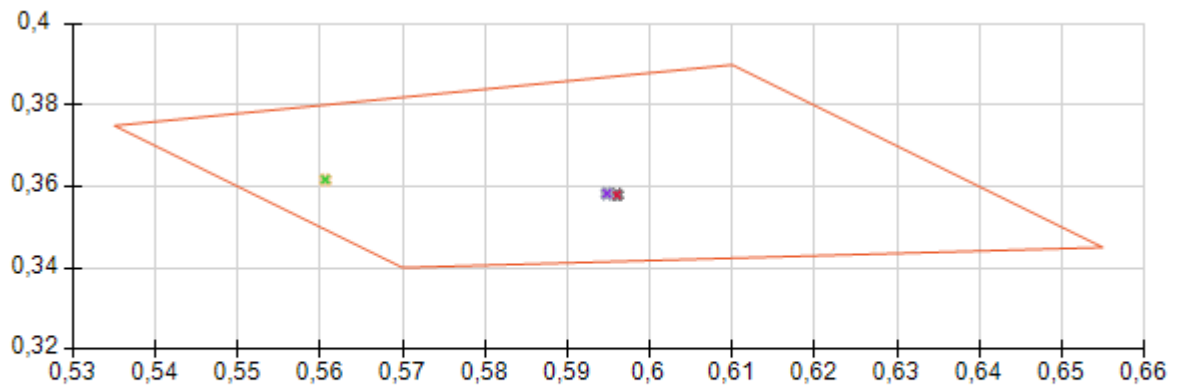
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**Reference**

2024CN0225-S02\_P1  
 2024CN0225-S02\_P2  
 2024CN0225-S01.1

	x	y	Y minimum
◆Coordinate 1	0,61	0,390	0,40
◆Coordinate 2	0,535	0,375	
◆Coordinate 3	0,570	0,340	
◆Coordinate 4	0,655	0,345	
After 25 washing cycles 4N + F	0,596	0,359	0,40
After exposure to Xenon light	0,561	0,362	0,42
Original	0,595	0,358	0,40
Uncertainty	± 0.4 %	± 0.5 %	± 1 %



◆	Original	◆	25 cycles, 4N + F
◆	After exposure to Xenon light		

The test was carried out at laboratory located at Carretera Banyeres s/n - 03802 Alcoi, Alicante

Reference	Description
2024CN0225-S02_P1	ORANGE JS001 FABRIC AFTER 25 WASHES
2024CN0225-S02_P2	ORANGE JS001 FABRIC AFTER XENON
2024CN0225-S01.1	Recycled Birdeye Fabric JS001 ORANGE



# RESULTS

## COLOUR FASTNESS TO RUBBING

**Standard**

EN ISO 105-X12:2016

**Equipment**

Crockmeter

**Test date**

**Start date** 21/03/2024 **End date** 03/04/2024

**Atmosphere for conditioning**

**Temperature** (20 ± 2) °C **Relative Humidity** (65 ± 2) %

**Conditioning time**

> 4 H

**Pin**

Cylindrical

**Applied force**

(9 ± 0,2) N

Reference	Direction	Dry staining
2024CN0225-S01.1	Lengthwise	4-5
	Crosswise	4-5

The test was carried out at laboratory located at Carretera Banyeres s/n - 03802 Alcoi, Alicante

Reference	Description
2024CN0225-S01.1	Recycled Birdeye Fabric JS001 ORANGE



# RESULTS

## COLOUR FASTNESS TO RUBBING

### Standard

EN ISO 105-X12:2016

### Equipment

Crockmeter

### Test date

**Start date** 21/03/2024 **End date** 03/04/2024

### Atmosphere for conditioning

**Temperature** (20 ± 2) °C **Relative Humidity** (65 ± 2) %

### Conditioning time

> 4 H

### Pin

Cylindrical

### Applied force

(9 ± 0,2) N

Reference	Direction	Dry staining
2024CN0225-S01.2	Lengthwise	4-5
	Crosswise	4-5

The test was carried out at laboratory located at Carretera Banyeres s/n - 03802 Alcoi, Alicante

Reference	Description
2024CN0225-S01.2	Recycled Birdeye Fabric JS002 YELLOW



# RESULTS

## COLOUR FASTNESS TO PERSPIRATION

**Standard**

EN ISO 105-E04:2013

**Equipment**

Perspirometer

**Test date**

**Start date** 03/04/2024 **End date** 03/04/2024

**Alkaline solution**

Reference	Staining ratio		Change in colour
2024CN0225-S01.1	Cotton	Polyester	5
	4-5	4-5	

**Acid Solution**

Reference	Staining ratio		Change in colour
2024CN0225-S01.1	Cotton	Polyester	5
	4-5	4-5	

The test was carried out at laboratory located at Carretera Banyeres s/n - 03802 Alcoi, Alicante

Reference	Description
2024CN0225-S01.1	Recycled Birdeye Fabric JS001 ORANGE



# RESULTS

## COLOUR FASTNESS TO PERSPIRATION

### Standard

EN ISO 105-E04:2013

### Equipment

Perspirometer

### Test date

Start date 03/04/2024 End date 03/04/2024

### Alkaline solution

Reference	Staining ratio		Change in colour
2024CN0225-S01.2	Cotton	Polyester	5
	4-5	4-5	

### Acid Solution

Reference	Staining ratio		Change in colour
2024CN0225-S01.2	Cotton	Polyester	5
	4-5	4-5	

The test was carried out at laboratory located at Carretera Banyeres s/n - 03802 Alcoi, Alicante

Reference	Description
2024CN0225-S01.2	Recycled Birdeye Fabric JS002 YELLOW



# RESULTS

## COLOUR FASTNESS TO DOMESTIC AND COMMERCIAL LAUNDERING

**Standard**

EN ISO 105-C06:2010

**Test date**

**Start date** 02/04/2024 **End date** 02/04/2024

**Equipment**

Gyrowash

**Test number**

A1M

**Temperature**

(40 )°C

**Steel balls**

10

**Washing powder**

Standardized ECE soap reference without optical or chemical whitener

**Reference**

2024CN0225-S01.1

Change in colour	Staining	
	Cotton	Polyester
5	4-5	4-5

The test was carried out at laboratory located at Carretera Banyeres s/n - 03802 Alcoi, Alicante

Reference	Description
2024CN0225-S01.1	Recycled Birdeye Fabric JS001 ORANGE



# RESULTS

## COLOUR FASTNESS TO DOMESTIC AND COMMERCIAL LAUNDERING

**Standard**

EN ISO 105-C06:2010

**Test date**

**Start date** 02/04/2024 **End date** 02/04/2024

**Equipment**

Gyrowash

**Test number**

A1M

**Temperature**

(40 )°C

**Steel balls**

10

**Washing powder**

Standardized ECE soap reference without optical or chemical whitener

**Reference**

2024CN0225-S01.2

Change in colour	Staining	
	Cotton	Polyester
5	4-5	4-5

The test was carried out at laboratory located at Carretera Banyeres s/n - 03802 Alcoi, Alicante

Reference	Description
2024CN0225-S01.2	Recycled Birdeye Fabric JS002 YELLOW



# RESULTS

## BURSTING RESISTANCE

**Standard**

EN ISO 13938-1:2019  
EN ISO 13938-2:2019

**Equipment**

Autoburst JAMES HEAL

**Conditioned date**

**Start date** 21/03/2024 **End date** 22/03/2024

**Atmosphere for conditioning**

**Temperature** (20 ± 2) °C **Relative Humidity** (65 ± 4) %

**Test conditions**

**Test surface**

7.3 cm<sup>2</sup>

**Test time**

(20 ± 5) s

**Number of test specimens per material to be tested**

**Tested** 5 **Rejected** 0

**Bursting in the proximity of the clamps**

0

**Uncertainty**

± 8% assay value of the measured

**Reference**

2024CN0225-S01

Bursting distension (mm)	Bursting strength (kPa)	Medium resistance (kPa)
18	912	900
	900	
	879	
	885	
	924	

**Note**

Breakage in a one direction

The test was carried out at laboratory located at Carretera Banyeres s/n - 03802 Alcoi, Alicante

Reference	Description
2024CN0225-S01	Recycled Birdeye Fabric JS001/ JS002



# RESULTS

## DETERMINATION OF DIMENSIONAL CHANGE IN WASHING AND DRYING

### Standard

EN ISO 5077:2008

### Preparation, marking and measuring of fabric specimens according to EN ISO 3759:2011

**Start date** 21/03/2024 **End date** 28/03/2024

### Washing cycles

5

### Uncertainty

± 0.4 %

### Reference

2024CN0225-S01\_P1

Specimen	Direction	Dimensional change (%)
1	LENGHTWISE	-1.0
	CROSSWISE	0

The test was carried out at laboratory located at Carretera Banyeres s/n - 03802 Alcoi, Alicante

Reference	Description
2024CN0225-S01_P1	Recycled Birdeye Fabric JS001/ JS002 AFTER 5 WASHES



# RESULTS

## WATER VAPOUR RESISTANCE

### Standard

EN ISO 11092:2014

### Test date

**Start date** 30/04/2024 **End date** 30/04/2024

### Atmosphere for conditioning

**Temperature** (35 ± 0.5) °C **Relative Humidity** (40 ± 3) %

### Conditioning time

24 h. ambient conditions at (35 ± 0.5) °C and (40 ± 3) % RH

### Uncertainty

± 7% of the result

### Number of test specimens per material to be tested

**Tested** 3

### Disposition test specimens

The inner face is in contact to the measurement surface.

Reference	Specimen	Water vapour resistance Ret (m <sup>2</sup> ·Pa/W)
2024CN0225-S01	1	1.91
	2	2.08
	3	1.95
	<b>Average</b>	1.98

The test was carried out at laboratory located at Carretera Banyeres s/n - 03802 Alcoi, Alicante

Reference	Description
2024CN0225-S01	Recycled Birdeye Fabric JS001/ JS002



# RESULTS

## PRE-TREATMENT FOR DOMESTIC WASHING AND DRYING PROCEDURES FOR TEXTILE TESTING

**Standard**

EN ISO 6330:2021

**Test date**

**Start date** 22/03/2024 **End date** 26/03/2024

**Washing procedure**

4N

**Washing temperature**

40°C

**Washing cycles**

25

**Dryer type**

James Heal

**Drying procedure**

F (type A1 tumble drying)

**Drying temperature**

70°C

**Washing powder**

Reference detergent 3

**Reference**

2024CN0225-S01.1

Units	Dry mass of the samples(Kg)	Counterweight mass(Kg)	Counterweight type	Equipment
1	0.03	1.8	Type III	WASCATOR

The test was carried out at laboratory located at Carretera Banyeres s/n - 03802 Alcoi, Alicante

Reference	Description
2024CN0225-S01.1	Recycled Birdeye Fabric JS001 ORANGE



# RESULTS

## PRE-TREATMENT FOR DOMESTIC WASHING AND DRYING PROCEDURES FOR TEXTILE TESTING

**Standard**

EN ISO 6330:2021

**Test date**

**Start date**

22/03/2024

**End date**

26/03/2024

**Washing procedure**

4N

**Washing temperature**

40°C

**Washing cycles**

25

**Dryer type**

James Heal

**Drying procedure**

F (type A1 tumble drying)

**Drying temperature**

70°C

**Washing powder**

Reference detergent 3

**Reference**

2024CN0225-S01.2

Units	Dry mass of the samples(Kg)	Counterweight mass(Kg)	Counterweight type	Equipment
1	0.02	1.8	Type III	WASCATOR

The test was carried out at laboratory located at Carretera Banyeres s/n - 03802 Alcoi, Alicante

Reference	Description
2024CN0225-S01.2	Recycled Birdeye Fabric JS002 YELLOW



**Lucia Martinez**  
Head of PPE and Ballistics department

Date: 30/04/2024 11:35:41

Digitally Signed by: LUCIA MARTINEZ MOLTO -

NIF: 21651425F

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