

2024CN0503

TEST REPORT

DATE OF RECEPTION

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

APPLICANT

DATE OF TESTS

Starting : 28/03/2024

Ending: 31/05/2024

China

REFERENCE OF SAMPLES

Reference by AITEX	Reference by customer	AITEX sample description
2024CN0407-S01	Birdeye Fabric JS008	Fabric
2024CN0227-S01	Birdeye Fabric JS007/ JS008	Fabric
2024CN0227-S02	Birdeye Fabric JS007	Fabric
2024CN0227-S03	Birdeye Fabric JS008	Fabric

TESTS CARRIED OUT

- PRE-TREATMENT FOR DOMESTIC WASHING AND DRYING PROCEDURES FOR TEXTILE TESTING
- DETERMINATION OF DIMENSIONAL CHANGE IN WASHING AND DRYING
- DETERMINATION OF COORDINATES (x,y,Y)
- COLOUR FASTNESS TO RUBBING
- COLOUR FASTNESS TO PERSPIRATION
- COLOUR FASTNESS TO DOMESTIC AND COMMERCIAL LAUNDERING
- BURSTING RESISTANCE
- 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: 2024CN0407-S01

Reference by customer:

Birdeye Fabric JS008

Information supplied by the customer

Composition and percentage: 100%polyester

Color: yellow



Reference by AITEX: 2024CN0227-S01

Reference by customer:

Birdeye Fabric JS007/ JS008

Information supplied by the customer

Composition and percentage: 100%polyester

Color: orange, yellow



Reference by AITEX: 2024CN0227-S02

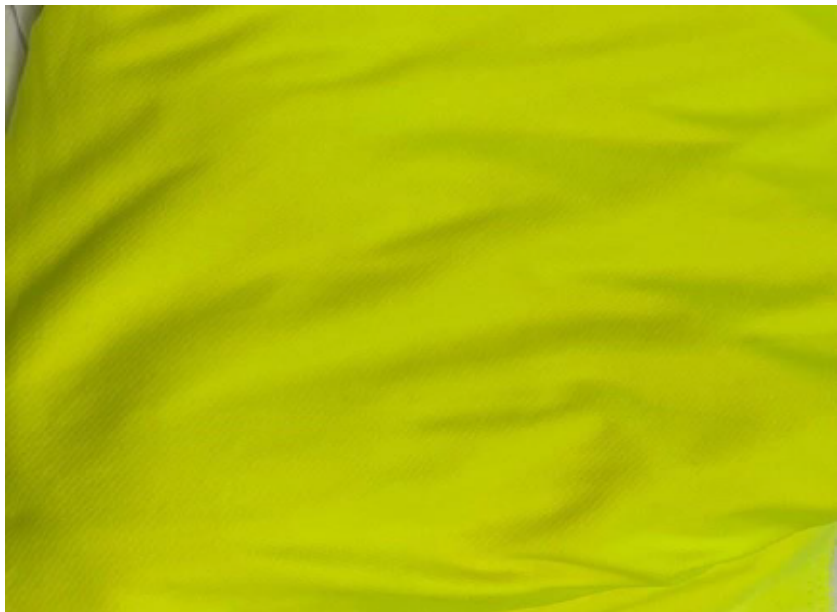
Reference by customer:

Birdeye Fabric JS007

Information supplied by the customer

Composition and percentage: 100%polyester

Color: orange



Reference by AITEX: 2024CN0227-S03

Reference by customer:

Birdeye Fabric JS008

Information supplied by the customer

Composition and percentage: 100%polyester

Color: yellow



AITEX Subsamples	Subsample Description
2024CN0407-S01_P1	Birdeye Fabric JS008 AFTER 20 WASHES
2024CN0227-S01_P1	Birdeye Fabric JS007/ JS008 AFTER 5 WASHES
2024CN0227-S01.1	Birdeye Fabric JS007 ORANGE
2024CN0227-S01.2	Birdeye Fabric JS008 YELLOW
2024CN0227-S02_P1	ORANGE JS007 FABRIC AFTER 25 WASHES
2024CN0227-S02_P2	ORANGE JS008 FABRIC AFTER XENON
2024CN0227-S03_P1	YELLOW JS008 FABRIC AFTER 25 WASHES
2024CN0227-S03_P2	YELLOW JS008 FABRIC AFTER XENON



EXECUTIVE SUMMARY

	Reference	Test/Standard	Result
EN ISO 20471:2013+EN ISO 20471:2013+AMD1: 2016	2024CN0227-S01	BURSTING RESISTANCE EN ISO 13938-2:2019	PASS
		WATER VAPOUR RESISTANCE EN ISO 11092:2014	PASS
	2024CN0227-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
	2024CN0227-S01.1+ 2024CN0227-S02_P1+ 2024CN0227-S02_P2	DETERMINATION OF COORDINATES (x,y,Y) ISO 105-J01:1997	PASS
	2024CN0227-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
	2024CN0227-S01.2+ 2024CN0227-S03_P1+ 2024CN0227-S03_P2	DETERMINATION OF COORDINATES (x,y,Y) ISO 105-J01:1997	PASS
	2024CN0227-S01_P1	DETERMINATION OF DIMENSIONAL CHANGE IN WASHING AND DRYING EN ISO 5077:2008	PASS
	2024CN0407-S01_P1	DETERMINATION OF DIMENSIONAL CHANGE IN WASHING AND DRYING EN ISO 5077:2008	PASS



REQUIREMENT SUMMARY

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.

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 ≥ 100 KPa for 50cm² surfaces and ≥ 200 KPa for 7.3m² surfaces.

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 m²·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

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

Standard

EN ISO 6330:2021

Test date

Start date

29/05/2024

End date

31/05/2024

Washing procedure

4N

Washing temperature

40°C

Washing cycles

20

Dryer type

James Heal

Drying procedure

F (type A1 tumble drying)

Washing powder

Reference detergent 3

Reference

2024CN0407-S01

Units	Dry mass of the samples(Kg)	Counterweight mass(Kg)	Counterweight type	Equipment
1	0.08	1.9	Type III	WASCATOR

The test was carried out at laboratory located at Carretera Banyeres 10 - 03802 Alcoi, Alicante

Reference	Description
2024CN0407-S01	Birdeye Fabric JS008



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 28/05/2024 **End date** 31/05/2024

Equipment

Wascator type A-Horizontal drum, front loading

Washing cycles

5

Uncertainty

± 0.4 %

Reference

2024CN0407-S01_P1

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

Note

Positive dimensional change indicates lengthening. Negative dimensional change indicates shrinkage

The test was carried out at laboratory located at Carretera Banyeres 10 - 03802 Alcoi, Alicante

Reference	Description
2024CN0407-S01_P1	Birdeye Fabric JS008 AFTER 20 WASHES



RESULTS

DETERMINATION OF COORDINATES (x,y,Y)

Standard

ISO 105-J01:1997

Equipment

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

Test date

Start date	26/3/2024	End date	26/3/2024
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Conditioned date

Start date	22/3/2024	End date	26/3/2024
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Atmosphere for conditioning

Temperature	(20 ± 2) °C	Relative Humidity	(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

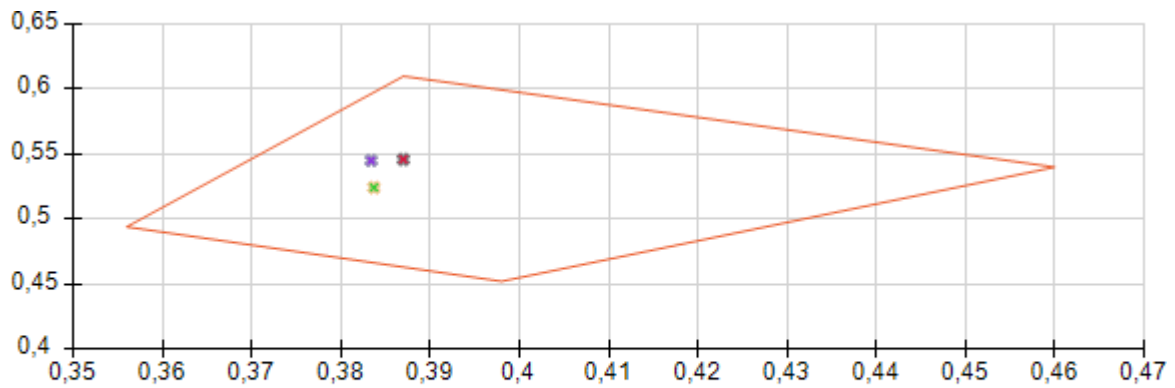
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Reference

2024CN0227-S03_P1
 2024CN0227-S03_P2
 2024CN0227-S01.2

	x	y	Y minimum
♦Coordinate 1	0,387	0,610	
♦Coordinate 2	0,356	0,494	
♦Coordinate 3	0,398	0,452	0,70
♦Coordinate 4	0,460	0,540	
After 25 washing cycles 4N + F	0,387	0,547	0,97
After exposure to Xenon light	0,384	0,524	0,83
Original	0,383	0,545	0,88
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 10 - 03802 Alcoi, Alicante

Reference	Description
2024CN0227-S03_P1	YELLOW JS008 FABRIC AFTER 25 WASHES
2024CN0227-S03_P2	YELLOW JS008 FABRIC AFTER XENON
2024CN0227-S01.2	Birdeye Fabric JS008 YELLOW



RESULTS

DETERMINATION OF COORDINATES (x,y,Y)

Standard

ISO 105-J01:1997

Equipment

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

Test date

Start date 26/3/2024 **End date** 26/3/2024

Conditioned date

Start date 22/3/2024 **End date** 26/3/2024

Atmosphere for conditioning

Temperature (20 ± 2) °C **Relative Humidity** (65 ± 5) %

Illuminant

D65

Observant

2°

Measuring geometry

45/0

Specular component and UV filter

Excluded

Observation area

Small

Number of measurements

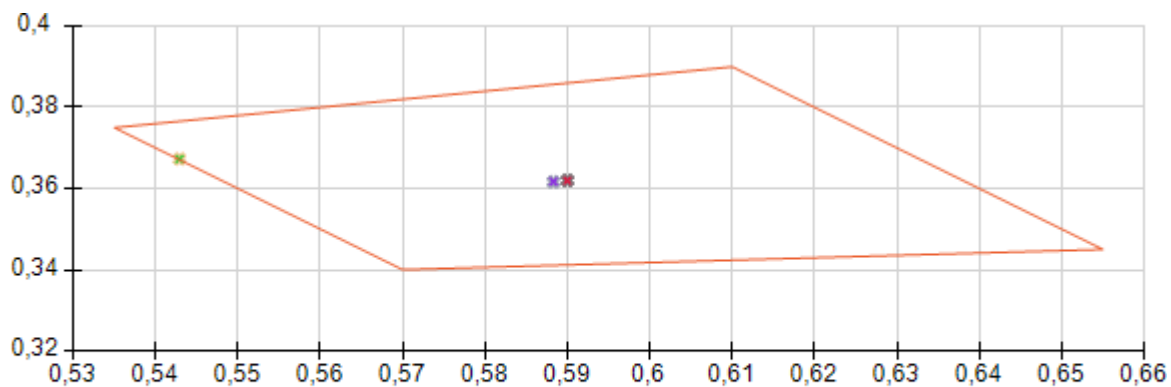
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Reference

- 2024CN0227-S02_P1
- 2024CN0227-S02_P2
- 2024CN0227-S01.1

	x	y	Y minimum
◆Coordinate 1	0,61	0,390	
◆Coordinate 2	0,535	0,375	
◆Coordinate 3	0,570	0,340	0,40
◆Coordinate 4	0,655	0,345	
After 25 washing cycles 4N + F	0,590	0,362	0,40
After exposure to Xenon light	0,543	0,367	0,44
Original	0,588	0,362	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 10 - 03802 Alcoi, Alicante

Reference	Description
2024CN0227-S02_P1	ORANGE JS007 FABRIC AFTER 25 WASHES
2024CN0227-S02_P2	ORANGE JS008 FABRIC AFTER XENON
2024CN0227-S01.1	Birdeye Fabric JS007 ORANGE



RESULTS

COLOUR FASTNESS TO RUBBING

Standard

EN ISO 105-X12:2016

Equipment

Crockmeter

Test date
Start date 22/03/2024 **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
2024CN0227-S01.1	Lengthwise	4-5
	Crosswise	4-5

The test was carried out at laboratory located at Carretera Banyeres 10 - 03802 Alcoi, Alicante

Reference	Description
2024CN0227-S01.1	Birdeye Fabric JS007 ORANGE



RESULTS

COLOUR FASTNESS TO RUBBING

Standard

EN ISO 105-X12:2016

Equipment

Crockmeter

Test date**Start date** 22/03/2024 **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
2024CN0227-S01.2	Lengthwise	4-5
	Crosswise	4-5

The test was carried out at laboratory located at Carretera Banyeres 10 - 03802 Alcoi, Alicante

Reference	Description
2024CN0227-S01.2	Birdeye Fabric JS008 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
	Cotton	Polyester	
2024CN0227-S01.1	4-5	4-5	5

Acid Solution

Reference	Staining ratio		Change in colour
	Cotton	Polyester	
2024CN0227-S01.1	4-5	4-5	5

The test was carried out at laboratory located at Carretera Banyeres 10 - 03802 Alcoi, Alicante

Reference	Description
2024CN0227-S01.1	Birdeye Fabric JS007 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
	Cotton	Polyester	
2024CN0227-S01.2	4-5	4-5	5

Acid Solution

Reference	Staining ratio		Change in colour
	Cotton	Polyester	
2024CN0227-S01.2	4-5	4-5	5

The test was carried out at laboratory located at Carretera Banyeres 10 - 03802 Alcoi, Alicante

Reference	Description
2024CN0227-S01.2	Birdeye Fabric JS008 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

2024CN0227-S01.1

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

The test was carried out at laboratory located at Carretera Banyeres 10 - 03802 Alcoi, Alicante

Reference	Description
2024CN0227-S01.1	Birdeye Fabric JS007 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

2024CN0227-S01.2

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

The test was carried out at laboratory located at Carretera Banyeres 10 - 03802 Alcoi, Alicante

Reference	Description
2024CN0227-S01.2	Birdeye Fabric JS008 YELLOW



RESULTS

BURSTING RESISTANCE

Standard

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

Equipment

Autoburst JAMES HEAL

Conditioned date

Start date 22/03/2024 **End date** 25/03/2024

Atmosphere for conditioning

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

Test conditions

Test surface

7.3 cm²

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

2024CN0227-S01

Bursting distension (mm)	Bursting strength (kPa)	Medium resistance (kPa)
16	852	863
	875	
	846	
	881	
	860	

Note

Breakage in a one direction

The test was carried out at laboratory located at Carretera Banyeres 10 - 03802 Alcoi, Alicante

Reference	Description
2024CN0227-S01	Birdeye Fabric JS007/ JS008



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 22/03/2024 End date 28/03/2024

Washing cycles

5

Uncertainty

± 0.4 %

Reference

2024CN0227-S01_P1

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

The test was carried out at laboratory located at Carretera Banyeres 10 - 03802 Alcoi, Alicante

Reference	Description
2024CN0227-S01_P1	Birdeye Fabric JS007/ JS008 AFTER 5 WASHES



RESULTS

WATER VAPOUR RESISTANCE

Standard

EN ISO 11092:2014

Test date

Start date 29/04/2024 **End date** 29/04/2024

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 ² ·Pa/W)
2024CN0227-S01	1	1.95
	2	2.08
	3	2.18
	Average	2.07

The test was carried out at laboratory located at Carretera Banyeres 10 - 03802 Alcoi, Alicante

Reference	Description
2024CN0227-S01	Birdeye Fabric JS007/ JS008



RESULTS

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

Standard

EN ISO 6330:2021

Test date

Start date

25/03/2024

End date

28/03/2024

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

2024CN0227-S01.1

Units	Dry mass of the samples(Kg)	Counterweight mass(Kg)	Counterweight type	Equipment
1	0.007	2	Type III	WASCATOR

The test was carried out at laboratory located at Carretera Banyeres 10 - 03802 Alcoi, Alicante

Reference	Description
2024CN0227-S01.1	Birdeye Fabric JS007 ORANGE



RESULTS

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

Standard

EN ISO 6330:2021

Test date

Start date 25/03/2024 **End date** 28/03/2024

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

2024CN0227-S01.2

Units	Dry mass of the samples(Kg)	Counterweight mass(Kg)	Counterweight type	Equipment
1	0.009	2	Type III	WASCATOR

The test was carried out at laboratory located at Carretera Banyeres 10 - 03802 Alcoi, Alicante

Reference	Description
2024CN0227-S01.2	Birdeye Fabric JS008 YELLOW



Lucia Martinez
Head of PPE and Ballistics department



Date: 21/06/2024 11:25:27

Digitally Signed by: ISABEL LLOPIS LUMBRERAS -

NIF: 21678551Q

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