TEST REPORT

2021CN0483

DATE OF RECEPTION
27/05/2021

DATE TESTS
Starting: 27/05/2021
Ending: 10/06/2021

APPLICANT

HAINING JUSHENG TEXTILE CO., LTD
NO.10 CHAOYANG ROAD, HAINING ECONOMIC DEVELOPMENTZONE, HAINING
CN-314400
HAINING

IDENTIFICATION AND DESCRIPTION OF SAMPLES

REFERENCES
FLEECE FABRIC

According to the information supplied by the customer:

Fabric reference: Fleece fabric
Composition and percentage: 100% Polyester
Color: Flourecent Orange

TESTS CARRIED OUT

- PHOTOGRAPHY.
- DETERMINATION OF COORDINATES (X,Y,Y).
- COLOUR FASTNESS TO RUBBING.
- COLOUR FASTNESS TO PERSPIRATION.
- COLOUR FASTNESS TO DOMESTIC AND COMMERCIAL LAUNDERING.
- PRE-TREATMENT FOR DOMESTIC WASHING AND DRYING PROCEDURES FOR TEXTILE TESTING.
- DETERMINATION OF DIMENSIONAL CHANGE IN DOMESTIC WASHING AND DRYING.
- BURSTING RESISTANCE*.
- MEANING OF COLOUR FASTNESS APPRAISAL EVALUATED WITH GREY SCALE.

AITEX - Plaza Emilio Sala, 1 - E-03801 ALCOY (Alicante) SPAIN Tel.:+34 96 554 22 00 www.aitex.es info@aitex.es

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

RESULTS

PHOTOGRAPHY

Reference [1]
Fleece Fabric

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RESULTS

DETERMINATION OF COORDINATES (X,Y,Y)

Standard
ASTM E1164–12

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

Illuminant
D_{65}

Observant
2º

Measuring geometry
45/0

Specular component and UV filter
Excluded

Observation area
Small

Conditioning of samples

Initiation date	28/05/2021	**End date**	08/06/2021
Temperature	(20 ± 2) ºC	**Humidity**	(65 ± 5) %

Test date

Initiation date	31/05/2021	**End date**	08/06/2021

Number of measurements
5

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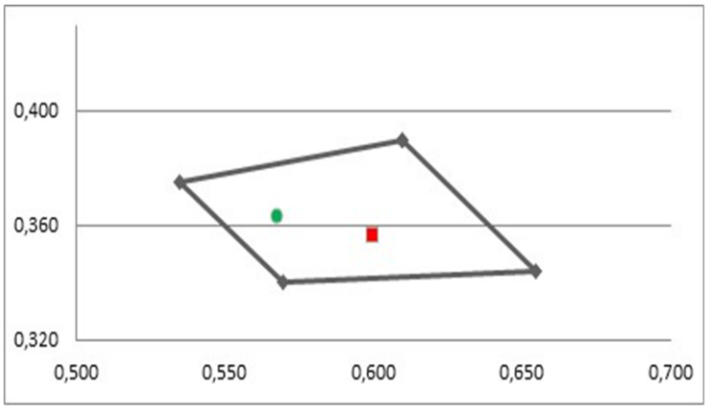
RESULTS

Reference
Fleece Fabric



Reference	x	y	Y minimum
♦ Coordinate 1	0,610	0,390	0,40
♦ Coordinate 2	0,535	0,375	
♦ Coordinate 3	0,570	0,340	
♦ Coordinate 4	0,655	0,344	
■ Fleece Fabric (Original)	0,600	0,356	0,45
● Fleece Fabric (After exposure to Xenon light)	0,568	0,363	0,47
Uncertainty	0.4 %	0.5 %	1 %

REQUISITE

The chromatic coordinates must be situated within the area defined by the coordinates specified in the Standard ANSI ISEA 107:2020 point (8.1) and the luminance no less than 0,40 specified in the Standard ANSI ISEA 107:2020 point (8.1).

PASS

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RESULTS

COLOUR FASTNESS TO RUBBING

Standard
AATCC TM 8:2013

Testing date
31/05/2021

Apparatus
Crockmeter

Scale used
AATCC Gray scale for staining (AATCC evaluation procedure 2)

REFERENCE	DRY STAINING	WET STAINING
Fleece Fabric	4-5	4-5

Requisite
The limit set by the Standard ANSI ISEA 107:2020 for testing of colour fastness to dry cleaning is 4 for change in colour.

PASS

RESULTS

COLOUR FASTNESS TO PERSPIRATION

Standard
AATCC TM 15:2013

Testing date
10/06/2021

Apparatus
Perspirometer

Scale used
AATCC Gray scale for staining (AATCC evaluation procedure 2)

Aparatus Code 02054I04

REFERENCE	Fleece Fabric					
CHANGE IN COLOUR	STAINING					
5	Wool	Acrylic	Polyester	Polyamide	Cotton	Acetate
	4-5	4-5	4-5	4	4-5	4

Requisite
The limit set by the Standard ANSI ISEA 107:2020 for testing of colour fastness to perspiration is 4 for change in colour

PASS

RESULTS

COLOUR FASTNESS TO DOMESTIC AND COMMERCIAL LAUNDERING

Standard
AATCC TM61-2013

Apparatus
Gyrowash

Test number
2A

Temperature
40 ºC

Steel balls
50

Detergent
Standardized 1993 AATCC WOB detergent

Test piece drying in forced-air circulation dryer

REFERENCE	Fleece Fabric					
CHANGE IN COLOUR	STAINING					
	Wool	Acrylic	Polyester	Polyamide	Cotton	Acetate
5	4-5	4-5	4-5	3-4	4-5	4

Requisite
The limit set by the Standard ANSI ISEA 107:2020 for testing of colour fastness to washing is 4-5 for change in colour and 3 for staining.

PASS

RESULTS

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

Standard
AATCC 135:2018

Standard deviation

Reference
Sample 1 Fleece Fabric

Washing machine
13373I12

Washing cycles
5

Washing procedure
III

Dryer machine
Whirlpool 13098I12

Drying procedure
Aiii

Washing powder
AATCC 1993 WOB

Start and finish date
01/06/2021 - 02/06/2021

RESULTS

DETERMINATION OF DIMENSIONAL CHANGE IN DOMESTIC WASHING AND DRYING

Standard
AATCC 135:2018

Machine cycle
3

Washing temperature
III 41ºC ± 3ºC

Washing machine
13373I12

Drying procedure
Aiii

Temperature drying
65 ºC

Dryer machine
13098I12

Number of drying cycles
1

Size of specimens and benchmarks
Option 1 - Samples of 380 x 380 mm and benchmarks of 250 mm.

Size of load
1.8Kg

Number of washing cycles
5

Uncertainty of test (% of the measured value)
± 0.5 %

Original samples had no wrinkles, were not distorted, not used, ironing or restored in any way.

Reference	Number of specimens	Direction	Dimensional change (%)
Fleece Fabric	3	Lengthwise	-1,8 %
		Crosswise	-2,2 %

REMARK
Negative dimensional change indicates shrinkage
Positive dimensional change indicates lengthening

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RESULTS

Requisite

In accordance with the Standard ANSI/ISEA 107:2020 point (8.3.1), the dimensional change shall not exceed ± 7% in lengthwise and ± 5% in crosswise for knitted fabrics and all other materials

PASS

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RESULTS

BURSTING RESISTANCE*

Standard
ASTM D3787-07: (2016)

Apparatus
Constant-Rate-of-Traverse (CRT) Tensile Testing Machine (CRT)

Test conditions
Dry specimens

Number of specimens tested
5

Reference	Bursting Strength (lbf)	
FLEECE FABRIC	**1.** 200 **2.** 218 **3.** 200 **4.** 200 **5.** 218	**207**

REQUISITE ACCORDING TO STANDARD ANSI/ISEA 107:2020

The minimum bursting strength shall be 178 N (18.1 kgf; 40 lbf).

PASS

RESULTS

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

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Lucia Martinez
Head of PPE and Ballistics department

Digitally signed by ISABEL LLOPIS LUMBRERAS - NIF:21678551Q
Date: 2021.06.14 12:55:26 +02:00
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