



aitex
textile research institute

TEST REPORT

2021CN0769

DATE OF RECEPTION

23/08/2021

DATE TESTS

Starting: 24/08/2021

Ending: 04/10/2021

APPLICANT

KUNSHAN SUNSHINETEX NEW
MATERIAL CO. LTD.
No. 417 Sanxiang Road
CN-215300 Kunshan
JIANGSU

IDENTIFICATION AND DESCRIPTION OF SAMPLES

REFERENCES

FABRIC REF.- POBFC3DY

According to information supplied by the customer:

Fabric reference: POBFC3DY

Composition and percentaje: 98% Polyester and 2% Carbon

Color: Nav y/ Fluo Yellow / Fluo Orange

TESTS CARRIED OUT

- PHOTOGRAPHY.
- PRE-TREATMENT FOR DOMESTIC WASHING AND DRYING PROCEDURES FOR TEXTILE TESTING.
- SURFACE RESISTANCE.





RESULTS

PHOTOGRAPHY



Reference

FABRIC Ref.- POBFC3DY



RESULTS

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

Standard

ISO 6330:2012

Standard deviation

Reference

Sample1 FABRIC Ref.- POBFC3DY

Units

1

Equipment

Wascator 13471E05

Dryer machine

JAMES HEAL

13473E05

Washing procedure 4N **Washing cycles** 5**Drying procedure**

F (tumble dryer)

Washing powder

ECE detergent 98 + sodium perborate + TAED

Units	Dry mass of the samples	Counterweight mass	Equipment
1	0,94 Kg	1,00 Kg of Polyester	Wascator 13471E05

Start and finish date

30/08/2021 - 31/08/2021

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RESULTS

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

Standard

ISO 6330:2012

Standard deviation

Reference

Sample1 FABRIC Ref.- POBFC3DY

Units

1

Equipment

Wascator 13471E05

Dryer machine

JAMES HEAL

13473E05

Washing procedure 4N **Washing cycles** 5**Drying procedure**

F (tumble dryer)

Washing powder

ECE detergent 98 + sodium perborate + TAED

Units	Dry mass of the samples	Counterweight mass	Equipment
1	0,41 Kg	1,59 Kg of Polyester	Wascator 13471E05

Start and finish date

30/08/2021 - 31/08/2021

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RESULTS

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

Standard

ISO 6330:2012

Standard deviation

Reference

Sample1 FABRIC Ref.- POBFC3DY

Units

1

Equipment

Wascator 13470E05

Dryer machine

JAMES HEAL

13472E05

Washing procedure 4N **Washing cycles** 5

Drying procedure

F (tumble dryer)

Washing powder

ECE detergent 98 + sodium perborate + TAED

Units	Dry mass of the samples	Counterweight mass	Equipment
1	0,46 Kg	1,54 Kg of Polyester	Wascator 13470E05

Start and finish date

27/08/2021 - 30/08/2021

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RESULTS

SURFACE RESISTANCE

Standard

EN 1149-1:2006

Conditioning

24h environmental conditions to (23 ± 1) °C and (25 ± 5) % RH

Ambient conditions test

23,0 °C and 26,2 % RH

Geometric factor of the electrode

19,8

Potential applied

(100 ± 5) V

Current measurement after

(15 ± 1) s

Deviation from the Standard

Test date

06/09/2021

Tested material

Orange woven fabric with white laminated internal face.

Pre-Treatment

5 washing cycles at 40°C, according to standard EN ISO 6330:2012, method 4N and type F drying (tumble dry).

Reference

FABRIC Ref.- POBFC3DY

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RESULTS

	Specimen	Surface Resistance (Ω)	Surface Resistivity (Ω)
Face1	1	$3,17 \cdot 10^{12}$	$6,28 \cdot 10^{13}$
	2	$3,03 \cdot 10^{12}$	$6,00 \cdot 10^{13}$
	3	$4,18 \cdot 10^{12}$	$8,28 \cdot 10^{13}$
	4	$2,83 \cdot 10^{12}$	$5,60 \cdot 10^{13}$
	5	$1,12 \cdot 10^{12}$	$2,22 \cdot 10^{13}$
	Geometric average	$2,64 \cdot 10^{12}$	$5,22 \cdot 10^{13}$
Face2	1	$5,15 \cdot 10^7$	$1,00 \cdot 10^9$
	2	$5,98 \cdot 10^7$	$1,18 \cdot 10^9$
	3	$5,52 \cdot 10^7$	$1,09 \cdot 10^9$
	4	$5,71 \cdot 10^7$	$1,13 \cdot 10^9$
	5	$6,28 \cdot 10^7$	$1,24 \cdot 10^9$
	Geometric average	$5,69 \cdot 10^7$	$1,13 \cdot 10^9$

REQUIREMENTS FOR ELECTROSTATIC PROTECTIVE CLOTHING ACCORDING TO STANDARD EN 1149-5:2018

The geometric mean of surface resistance should be below or equal to $2,5 \cdot 10^9 \Omega$, at least on one surface of the fabric, tested according to EN 1149-1.

ACCORDING TO STANDARD EN 1149-5:2018

PASS

The uncertainty of the assay of Surface Resistance is $\pm 20\%$ of the value measured, for a coverage factor of $K=2$ (95%).



Lucia Martinez
Head of PPE and Ballistics department

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