

2024EP0414**TEST REPORT****DATE OF RECEPTION***Date Format: dd/MM/yyyy* 29/01/2024**DATE OF TESTS**

Starting : 29/01/2024

Ending: 27/02/2024

APPLICANT

XM TEXTILES POLSKA SP. Z O. O.

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Poland

Att Irina Danilova

REFERENCE OF SAMPLES

Reference by AITEX	Reference by customer	AITEX sample description
2024EP0414-S01	Poseidon-245	Woven fabric

TESTS CARRIED OUT

- PRE-TREATMENT FOR DOMESTIC WASHING AND DRYING PROCEDURES FOR TEXTILE TESTING
- DETERMINATION OF HEAT RESISTANCE 180°C
- LIMITED FLAME SPREAD
- DETERMINATION OF DIMENSIONAL CHANGE IN WASHING AND DRYING
- DETERMINATION OF BREAKING STRENGTH AND ELONGATION
- DETERMINATION OF TEAR RESISTANCE
- DETERMINATION OF THE HEAT TRANSMISSION ON EXPOSURE TO FLAME
- DETERMINATION OF BEHAVIOUR ON EXPOSURE TO A SOURCE OF RADIANT HEAT
- DETERMINATION OF BEHAVIOUR OF MATERIALS ON IMPACT SPLASHES OF MOLTEN METAL - ALUMINIUM
- DETERMINATION OF BEHAVIOUR OF MATERIALS ON IMPACT SPLASHES OF MOLTEN METAL - IRON
- DETERMINATION OF THE CONTACT HEAT TRANSMISSION
- DETERMINATION OF MASS PER UNIT AREA USING SMALL SAMPLES
- DETERMINATION OF BEHAVIOUR OF MATERIALS ON IMPACT OF SPLASHES OF MOLTEN METAL
- ELECTROSTATIC PROPERTIES: MEASUREMENT OF ELECTRICAL RESISTANCE THROUGH A MATERIAL (VERTICAL RESISTANCE)
- ELECTROSTATIC PROPERTIES: INDUCTIVE CHARGING METHOD TO DETERMINE CHARGE DECAY

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



DESCRIPTION OF SAMPLES



Reference by AITEX: 2024EP0414-S01

Reference by customer:

Poseidon-245

AITEX sample description:

Navy woven fabric.

Information supplied by the customer

- Fabric ref. Poseidon-245
- Weight 245 gsm
- Color Navy
- Others (if any) 556

Composition provided by the customer:

80% Cotton, 19% Polyester, 1% Antistatic, FR-Twill 2/2

AITEX Subsamples	Subsample Description
2024EP0414-S01_P1	Woven fabric - AFTER WASH 5 cycles



EXECUTIVE SUMMARY

	Reference	Test/Standard	Result
EN ISO 11612:2015		DETERMINATION OF HEAT RESISTANCE 180°C ISO 17493:2016	PASS
		DETERMINATION OF DIMENSIONAL CHANGE IN WASHING AND DRYING EN ISO 5077:2008	PASS
		DETERMINATION OF BREAKING STRENGTH AND ELONGATION EN ISO 13934-1:2013	PASS
		DETERMINATION OF TEAR RESISTANCE EN ISO 13937-2:2000	PASS
	2024EP0414-S01_P1	DETERMINATION OF THE HEAT TRANSMISSION ON EXPOSURE TO FLAME EN ISO 9151:2016	B1
		DETERMINATION OF BEHAVIOUR ON EXPOSURE TO A SOURCE OF RADIANT HEAT EN ISO 6942:2022	C1
		DETERMINATION OF BEHAVIOUR OF MATERIALS ON IMPACT SPLASHES OF MOLTEN METAL - ALUMINIUM EN ISO 9185:2007	D2
		DETERMINATION OF BEHAVIOUR OF MATERIALS ON IMPACT SPLASHES OF MOLTEN METAL - IRON EN ISO 9185:2007	E3
		DETERMINATION OF THE CONTACT HEAT TRANSMISSION EN ISO 12127-1:2015	F1
		2024EP0414-S01+ 2024EP0414-S01_P1	LIMITED FLAME SPREAD EN ISO 15025:2016 Met.A
		LIMITED FLAME SPREAD EN ISO 15025:2016 Met.B	A2



	Reference	Test/Standard	Result
EN ISO 11611:2015	2024EP0414-S01_P1	DETERMINATION OF DIMENSIONAL CHANGE IN WASHING AND DRYING EN ISO 5077:2008	PASS
		DETERMINATION OF BREAKING STRENGTH AND ELONGATION EN ISO 13934-1:2013	PASS
		DETERMINATION OF TEAR RESISTANCE EN ISO 13937-2:2000	PASS
		DETERMINATION OF BEHAVIOUR ON EXPOSURE TO A SOURCE OF RADIANT HEAT EN ISO 6942:2022	CLASS 1
		DETERMINATION OF MASS PER UNIT AREA USING SMALL SAMPLES EN 12127:1997 Pto.8.3	TESTED
		DETERMINATION OF BEHAVIOUR OF MATERIALS ON IMPACT OF SPLASHES OF MOLTEN METAL ISO 9150:1988	CLASS 1
		ELECTROSTATIC PROPERTIES: MEASUREMENT OF ELECTRICAL RESISTANCE THROUGH A MATERIAL (VERTICAL RESISTANCE) EN 1149-2:1997	PASS
	2024EP0414-S01+ 2024EP0414-S01_P1	LIMITED FLAME SPREAD EN ISO 15025:2016 Met.A	A1
		LIMITED FLAME SPREAD EN ISO 15025:2016 Met.B	A2
	EN 1149-5:2018	Reference	Test/Standard
2024EP0414-S01_P1		ELECTROSTATIC PROPERTIES: INDUCTIVE CHARGING METHOD TO DETERMINE CHARGE DECAY EN 1149-3:2004 Método 2	PASS



REQUIREMENT SUMMARY

DETERMINATION OF HEAT RESISTANCE 180°C REQUIREMENT ACCORDING EN ISO 11612:2015

Fabric

No layer can melt and/or drip.

At 180°C not layer shrink by more than 5%.

Not layer must ignite.

Hardware

No hardware/strip/seam shall ignite or melt

Closures opens

LIMITED FLAME SPREAD REQUIREMENT ACCORDING EN ISO 11612:2015

- No specimen shall permit any part of the lowest boundary of any flame to reach the upper or either vertical edge
- No specimen shall give flaming or molten debris
- The afterglow time of each sample shall be ≤ 2 s. Any afterglow shall not spread from the carbonised area to the undamaged area after the cessation of flaming.
- For Method A, no specimen shall give hole formation of 5 mm or greater in any direction.
- The after flame time of each sample shall be ≤ 2 s

LIMITED FLAME SPREAD REQUIREMENT ACCORDING EN ISO 11611:2015

- No specimen shall permit any part of the lowest boundary of any flame to reach the upper or either vertical edge
- No specimen shall give flaming or molten debris
- The afterglow time of each sample shall be ≤ 2 s. Any afterglow shall not spread from the carbonised area to the undamaged area after the cessation of flaming.
- For Method A, no specimen shall give hole formation of 5 mm or greater in any direction.
- The after flame time of each sample shall be ≤ 2 s



DETERMINATION OF DIMENSIONAL CHANGE IN WASHING AND DRYING

REQUIREMENT ACCORDING EN ISO 11612:2015

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 DIMENSIONAL CHANGE IN WASHING AND DRYING

REQUIREMENT ACCORDING EN ISO 11611:2015

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 BREAKING STRENGTH AND ELONGATION

REQUIREMENT ACCORDING EN ISO 11612:2015

The external material must resist a breaking load in both directions ≥ 300 N. In case of leather must resist a breaking load in both directions ≥ 60 N.

DETERMINATION OF BREAKING STRENGTH AND ELONGATION

REQUIREMENT ACCORDING EN ISO 11611:2015

The external material must resist a breaking load in both directions ≥ 400 N. In case of leather must resist a breaking load in both directions ≥ 80 N.

DETERMINATION OF TEAR RESISTANCE

REQUIREMENT ACCORDING EN ISO 11611:2015

The material must resist a breaking load in both directions ≥ 15 N.

DETERMINATION OF TEAR RESISTANCE

REQUIREMENT ACCORDING EN ISO 11612:2015

The material must resist a breaking load in both directions ≥ 10 N.



DETERMINATION OF THE HEAT TRANSMISSION ON EXPOSURE TO FLAME

REQUIREMENT ACCORDING EN ISO 11612:2015

Performance level	Range of HTI ^a 24 values (s)	
	Minimum	Maximum
B1	4.0 < 10.0	
B2	10.0 < 20.0	
B3	20.0	

^a: Heat transfer index, as defined in ISO 9151:1995

DETERMINATION OF BEHAVIOUR ON EXPOSURE TO A SOURCE OF RADIANT HEAT

REQUIREMENT ACCORDING EN ISO 11611:2015

Heat transfer index	Class 1	Class 2
RHTI 24	≥ 7	≥ 16

DETERMINATION OF BEHAVIOUR ON EXPOSURE TO A SOURCE OF RADIANT HEAT

REQUIREMENT ACCORDING EN ISO 11612:2015

Performance level	Heat transfer level t24(s)
C1	≥ 7
C2	≥ 20
C3	≥ 50
C4	≥ 95

DETERMINATION OF BEHAVIOUR OF MATERIALS ON IMPACT SPLASHES OF MOLTEN METAL - ALUMINIUM

REQUIREMENT ACCORDING EN ISO 11612:2015

Performance level	Molten aluminum (g)
D1	100 < 200
D2	200 < 350
D3	≥ 350

DETERMINATION OF BEHAVIOUR OF MATERIALS ON IMPACT SPLASHES OF MOLTEN METAL - IRON

REQUIREMENT ACCORDING EN ISO 11612:2015

	Molten iron (g)
E1	60 < 120
E2	120 < 200
E3	≥ 200



DETERMINATION OF THE CONTACT HEAT TRANSMISSION

REQUIREMENT ACCORDING EN ISO 11612:2015

Performance level	Threshold Time Ts (s)	
	Minimum	Maximum
F1	5	< 10
F2	10	< 15
F3	15	

DETERMINATION OF BEHAVIOUR OF MATERIALS ON IMPACT OF SPLASHES OF MOLTEN METAL

REQUIREMENT ACCORDING EN ISO 11611:2015

Class 1	Class 2
Minimum 15 drops	Minimum 25 drops

ELECTROSTATIC PROPERTIES: MEASUREMENT OF ELECTRICAL RESISTANCE THROUGH A MATERIAL (VERTICAL RESISTANCE)

REQUIREMENT ACCORDING EN ISO 11611:2015

Vertical electric resistance, must be higher than $1,0 \cdot 10^5 \Omega$.

ELECTROSTATIC PROPERTIES: INDUCTIVE CHARGING METHOD TO DETERMINE CHARGE DECAY

REQUIREMENT ACCORDING EN 1149-5:2018

Requirements according to Standard EN 1149-5:2018 for the induction charge method according to the Standard EN 1149-3:2004 are:

$$t_{50} < 4s \text{ or } S > 0,2$$

Where

t_{50} = decay half time

S = shielding factor



RESULTS

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

Standard

EN ISO 6330:2021

Test date

Start date

30/01/2024

End date

31/01/2024

Washing procedure

6N

Washing temperature

60°C

Washing cycles

5

Dryer type

James Heal

Drying procedure

F (type A1 tumble drying)

Drying temperature

70°C

Washing powder

Reference detergent 3

Reference

2024EP0414-S01

Units	Dry mass of the samples(Kg)	Counterweight mass(Kg)	Counterweight type	Equipment
1	1.8	---	---	WASCATOR

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

Reference	Description
2024EP0414-S01	Poseidon-245



RESULTS

DETERMINATION OF HEAT RESISTANCE 180°C

Standard

ISO 17493:2016

Equipment

Air stove

Test date

Start date 01/02/2024 **End date** 19/02/2024

Temperature

(180 ± 5)°C

Length of the test

5 min (+0,15/-0) min

Uncertainty

± 1 %

Reference

2024EP0414-S01_P1

Ignition	Melting	Direction	Shrink(-) Elongation(+)
NO	NO	Warp	-2%
		Weft	-1%
NO	NO	Warp	-2%
		Weft	-2%
NO	NO	Warp	-2%
		Weft	-2%

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

Reference	Description
2024EP0414-S01_P1	Woven fabric - AFTER WASH 5 cycles



RESULTS

LIMITED FLAME SPREAD

Standard

EN ISO 15025:2016 Met.A

Equipment

Equipment for determination of limited flame spread

Test date

Start date	30/01/2024	End date	16/02/2024
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Conditioned date

Start date	30/01/2024	End date	16/02/2024
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Conditioned

24h in indoor ambient conditions at (20 ± 2) °C and (65 ± 5) % RH

Gas used

Propane gas

Face exposed to the flame

Outer



Reference

2024EP0414-S01

Atmosphere for testing

Temperature

22.1 °C

Relative Humidity

43.3 %

Direction	Warp			Weft		
Flaming to top or either side edge	NO	NO	NO	NO	NO	NO
Post- After flame (s)	0	0	0	0	0	0
Afterglow time (s)	0	0	0	0	0	0
Melting	NO	NO	NO	NO	NO	NO
Loose waste	NO	NO	NO	NO	NO	NO
Inflammation of the filter paper detached from waste	NO	NO	NO	NO	NO	NO
Hole formation	NO	NO	NO	NO	NO	NO

Reference

2024EP0414-S01_P1

Atmosphere for testing

Temperature

22.1 °C

Relative Humidity

43.4 %

Direction	Warp			Weft		
Flaming to top or either side edge	NO	NO	NO	NO	NO	NO
Post- After flame (s)	0	0	0	0	0	0
Afterglow time (s)	0	0	0	0	0	0
Melting	NO	NO	NO	NO	NO	NO
Loose waste	NO	NO	NO	NO	NO	NO
Inflammation of the filter paper detached from waste	NO	NO	NO	NO	NO	NO
Hole formation	NO	NO	NO	NO	NO	NO

Uncertainty

The uncertainty of the assay of limited flame spread is $\pm 2\%$ of the value measured

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

Reference	Description
2024EP0414-S01	Poseidon-245
2024EP0414-S01_P1	Woven fabric - AFTER WASH 5 cycles



RESULTS

LIMITED FLAME SPREAD

Standard

EN ISO 15025:2016 Met.B

Equipment

Equipment for determination of limited flame spread

Test date

Start date	30/01/2024	End date	16/02/2024
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Conditioned date

Start date	30/01/2024	End date	16/02/2024
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Conditioned

24h in indoor ambient conditions at (20 ± 2) °C and (65 ± 5) % RH

Gas used

Propane gas

Face exposed to the flame

Edge: Hemmed fabric specimen



Reference

2024EP0414-S01

Atmosphere for testing

Temperature

22.1 °C

Relative Humidity

43.3 %

Direction	Warp			Weft		
Flaming to top or either side edge	NO	NO	NO	NO	NO	NO
Post- After flame (s)	0	0	0	0	0	0
Afterglow time (s)	0	0	0	0	0	0
Melting	NO	NO	NO	NO	NO	NO
Loose waste	NO	NO	NO	NO	NO	NO
Inflammation of the filter paper detached from waste	NO	NO	NO	NO	NO	NO
Hole formation	NO	NO	NO	NO	NO	NO

Reference

2024EP0414-S01_P1

Atmosphere for testing

Temperature

22.1 °C

Relative Humidity

43.4 %

Direction	Warp			Weft		
Flaming to top or either side edge	NO	NO	NO	NO	NO	NO
Post- After flame (s)	0	0	0	0	0	0
Afterglow time (s)	0	0	0	0	0	0
Melting	NO	NO	NO	NO	NO	NO
Loose waste	NO	NO	NO	NO	NO	NO
Inflammation of the filter paper detached from waste	NO	NO	NO	NO	NO	NO
Hole formation	NO	NO	NO	NO	NO	NO

Uncertainty

The uncertainty of the assay of limited flame spread is $\pm 2\%$ of the value measured

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

Reference	Description
2024EP0414-S01	Poseidon-245
2024EP0414-S01_P1	Woven fabric - AFTER WASH 5 cycles



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 30/01/2024 **End date** 19/02/2024

Washing cycles

5

Uncertainty

± 0.4 %

Reference

2024EP0414-S01_P1

Specimen	Direction	Dimensional change (%)
1	WARP	-1.0
	WEFT	-1.0

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

Reference	Description
2024EP0414-S01_P1	Woven fabric - AFTER WASH 5 cycles



RESULTS

DETERMINATION OF BREAKING STRENGTH AND ELONGATION

Standard

EN ISO 13934-1:2013

Equipment

INSTRON Dynamometer

Conditioned date

Start date 31/01/2024 **End date** 19/02/2024

Test date

Start date 31/01/2024 **End date** 19/02/2024

Gauge length

Warp: 200 mm

Weft: 200 mm

Pretension

Warp: 5 N

Weft: 5 N

Gauge speed

Warp: 100 mm/min

Weft: 100 mm/min

Atmosphere for conditioning

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

Number of test specimens per material to be tested

Tested 5 **Rejected** 0

State of the specimens

Conditioned

Reference

2024EP0414-S01_P1

Direction	Maximum force (N)	Medium strength	C.V.	Elongation to the maximum load(%)	Average elongation	C.V.
Warp	1300	1300	3,8	11	11	2,4
	1200			10,5		
	1300			10,5		
	1300			11		
	1300			11		
Weft	580	580	2,4	17,5	17,5	2,7
	570			17		
	600			17,5		
	600			17,5		
	570			16,5		

Uncertainty

± 5% assay value of the measured

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



Reference	Description
2024EP0414-S01_P1	Woven fabric - AFTER WASH 5 cycles



RESULTS

DETERMINATION OF TEAR RESISTANCE

Standard

EN ISO 13937-2:2000

Equipment

INSTRON Dynamometer

Test date

Start date 31/01/2024 **End date** 22/02/2024

Conditioned date

Start date 31/01/2024 **End date** 22/02/2024

Atmosphere for conditioning

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

Number of test specimens per material to be tested

Tested 5 **Rejected** 0

Reference

2024EP0414-S01_P1

Tear	Specimen (N)	Average load	Classification value (N)	C.V.
Warp	24.2	24	20.2	2.4
	24.3			
	23.8			
	23.8			
	22.9			
Weft	20.4	21	20.2	3.5
	20.2			
	20.6			
	20.7			
	22			

Uncertainty

±3.9% assay value of the measured

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

Reference	Description
2024EP0414-S01_P1	Woven fabric - AFTER WASH 5 cycles



RESULTS

DETERMINATION OF THE HEAT TRANSMISSION ON EXPOSURE TO FLAME

Standard

EN ISO 9151:2016

Equipment

Equipment for the determination of convective heat

Testing Method

Method B

Conditioned

24h in indoor ambient conditions at (20 ± 2) °C and (65 ± 5) % RH

Ambient test conditions

21.6 °C and 43.9 % RH

Test date

Start date 01/02/2024 **End date** 13/02/2024

Uncertainty

The uncertainty of the assay of Convective heat is $\pm 4\%$ of the value measured

Reference

2024EP0414-S01_P1

Heat flux density

80.59 kW/m²

Specimen	Range HTI ^a 12 values (s)	Time for a 24°C temperature rise HTI (s)
1	4.2	5.7
2	4.2	5.8
3	4.3	5.8
Classification value	4.2	5.7
Average	4.2	5.8

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

Reference	Description
2024EP0414-S01_P1	Woven fabric - AFTER WASH 5 cycles



RESULTS

DETERMINATION OF BEHAVIOUR ON EXPOSURE TO A SOURCE OF RADIANT HEAT

Standard

EN ISO 6942:2022

Equipment

Equipment for the determination of radiant heat

Conditioned

24h in indoor ambient conditions at (20 ± 2) °C and (65 ± 5) % RH

Ambient test conditions

21.6 °C and 43.9 % RH

Test date

Start date 01/02/2024 **End date** 13/02/2024

Reference

2024EP0414-S01_P1

Heat flux density

19.80 kW/m²

Specimen	TF(%)	Heat transfer index RHTI 12 (s)	Heat transfer index RHTI24	(RHTI 24 - RHTI 12) (s)
1	61.9	6.4	11.8	5.4
2	60.7	6.7	12.2	5.5
3	57.6	6.7	12.5	5.8
Average	60.1	6.6	12.2	5.6
Result	61.9	6.4	11.8	5.4

Uncertainty

The uncertainty of the assay of Radiant heat is $\pm 3\%$ of the value measured

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

Reference	Description
2024EP0414-S01_P1	Woven fabric - AFTER WASH 5 cycles



RESULTS

DETERMINATION OF BEHAVIOUR OF MATERIALS ON IMPACT SPLASHES OF MOLTEN METAL - ALUMINIUM

Standard

EN ISO 9185:2007

Metal

Aluminium

Pouring temperature

(780±20) °C

Pouring angle

(60±1) °C

Pouring height

(225±5) mm

Uncertainty

± 1 % of the value measured

Reference

2024EP0414-S01_P1

Test date
Start date

31/01/2024

End date

27/02/2024

Atmosphere for testing
Temperature

22.0 °C

Relative Humidity

33.2 %

Mass of metal used (g)	Mass of metal pouring (g)	Ignition	Puncture	Metal adhered to fabric	Assessment of PVC film
114.23	106.23	NO	NO	YES	NOT DAMAGED
214.56	206.56	NO	NO	YES	NOT DAMAGED
213.56	207.56	NO	NO	YES	NOT DAMAGED
214.23	206.23	NO	NO	YES	NOT DAMAGED
212.98	206.98	NO	NO	YES	NOT DAMAGED
364.56	357.56	YES	NO	YES	DAMAGED

Molten Metal Splash Index (g): $(207.56 + 357.56)/2 = 283$

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

Reference	Description
2024EP0414-S01_P1	Woven fabric - AFTER WASH 5 cycles



RESULTS

DETERMINATION OF BEHAVIOUR OF MATERIALS ON IMPACT SPLASHES OF MOLTEN METAL - IRON

Standard

EN ISO 9185:2007

Metal

Iron

Pouring temperature

(1400±20) °C

Pouring angle

(75±1) °C

Pouring height

(225±5) mm

Uncertainty

± 1 % of the value measured

Reference

2024EP0414-S01_P1

Test date

Start date

31/01/2024

End date

27/02/2024

Atmosphere for testing

Temperature

22.4 °C

Relative Humidity

34.8 %

Mass of metal used (g)	Mass of metal pouring (g)	Ignition	Puncture	Metal adhered to fabric	Assessment of PVC film
204.21	204.21	NO	NO	NO	NOT DAMAGED
203.56	203.56	NO	NO	NO	NOT DAMAGED
202.99	202.99	NO	NO	NO	NOT DAMAGED
203.65	203.65	NO	NO	NO	NOT DAMAGED

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

Reference	Description
2024EP0414-S01_P1	Woven fabric - AFTER WASH 5 cycles



RESULTS

DETERMINATION OF THE CONTACT HEAT TRANSMISSION

Standard

EN ISO 12127-1:2015

Equipment

ÖTI CONTACT HEAT PROTECTION TESTER

Conditioned

24h in indoor ambient conditions at (20 ± 2) °C and (65 ± 5) % RH

Test date

Start date 01/02/2024 **End date** 20/02/2024

Uncertainty

The uncertainty of the assay of contact heat test is $\pm 2\%$ of the value

Reference

2024EP0414-S01_P1

Atmosphere for testing

Temperature 21.2 °C **Relative Humidity** 48.6 %

Specimen	Contact temperature (°C)	Threshold time T (s)
1	250	8.69
2	250	8.57
3	250	8.62
Average	250	8.6
Classification value	250	8.6

Reference	Description
2024EP0414-S01_P1	Woven fabric - AFTER WASH 5 cycles



RESULTS

DETERMINATION OF MASS PER UNIT AREA USING SMALL SAMPLES

Standard

EN 12127:1997 Pto.8.3

Conditioned date

Start date 31/01/2024 **End date** 5/2/2024

Atmosphere for conditioning

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

Test date

Start date 31/01/2024 **End date** 05/02/2024

Reference

2024EP0414-S01_P1

Atmosphere for testing

Temperature (20.0± 2) °C **Relative Humidity** (65.0 ± 4) %

Mass per unit area (g/m ²)	C.V. (%)
257	0.5

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

Reference	Description
2024EP0414-S01_P1	Woven fabric - AFTER WASH 5 cycles



RESULTS

DETERMINATION OF BEHAVIOUR OF MATERIALS ON IMPACT OF SPLASHES OF MOLTEN METAL

Standard

ISO 9150:1988

Equipment

Equipment for small molten metal splashes

Test date

Start date 29/01/2024 **End date** 27/02/2024

Conditioned

24h in indoor ambient conditions at (20 ± 2) °C and (65 ± 5) % RH

Reference

2024EP0414-S01_P1

Specimen	Nº of drops
1	17
2	19
3	17
4	21
5	17
6	17
7	17
8	22
9	22
10	22
Classification value	17
Average	19

Uncertainty

$\pm 7\%$ of the value measured

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

Reference	Description
2024EP0414-S01_P1	Woven fabric - AFTER WASH 5 cycles



RESULTS

ELECTROSTATIC PROPERTIES: MEASUREMENT OF ELECTRICAL RESISTANCE THROUGH A MATERIAL (VERTICAL RESISTANCE)

Standard

EN 1149-2:1997

Atmosphere for conditioning

Temperature	$(20 \pm 2) \text{ }^\circ\text{C}$	Relative Humidity	$(85 \pm 5) \%$
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Contact pressure

2.25 kPa

Potential applied
 $(100 \pm 5) \text{ V}$
Current measurement after
 $(15 \pm 1) \text{ s}$
Uncertainty
 $\pm 20\%$ of the obtained value

Reference

2024EP0414-S01_P1

Test date

Start date	01/02/2024	End date	15/02/2024
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Atmosphere for testing

Temperature	19.7 $^\circ\text{C}$	Relative Humidity	85.4 %
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Specimen	Vertical resistance (Ohm)
1	$1.25 \cdot 10^7$
2	$5.98 \cdot 10^6$
3	$7.14 \cdot 10^6$
4	$8.47 \cdot 10^6$
5	$1.05 \cdot 10^7$
Classification value	$5.98 \cdot 10^6$
Average (Ohm)	$8.92 \cdot 10^6$

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

Reference	Description
2024EP0414-S01_P1	Woven fabric - AFTER WASH 5 cycles



RESULTS

ELECTROSTATIC PROPERTIES: INDUCTIVE CHARGING METHOD TO DETERMINE CHARGE DECAY

Standard

EN 1149-3:2004 Método 2

Testing Method

Induction charge (Test method 2).

Conditioned date

Start date 1/2/2024 **End date** 13/02/2024

Conditioning time

24 h. ambient conditions at $(23 \pm 1) ^\circ\text{C}$ and $(25 \pm 5) \% \text{RH}$

Potential applied

$(1200 \pm 50) \text{ V}$ in $30 \mu\text{s}$

Time measurement

30 s

Uncertainty

Shielding factor: $\pm 0,02$ t50: $\pm 0,01$ s

Reference

2024EP0414-S01_P1

Test date

Start date 01/02/2024 **End date** 13/02/2024

Atmosphere for testing

Temperature 23.0 $^\circ\text{C}$ **Relative Humidity** 26.6 %

Specimen	Decay half time (s)	Shielding factor (units)
1	<0.01	0.6
2	<0.01	0.5
3	<0.01	0.6
Average	<0.01	0.6

Reference	Description
2024EP0414-S01_P1	Woven fabric - AFTER WASH 5 cycles



Lucia Martinez
Head of PPE and Ballistics department



Date: 27/02/2024 16:58:26

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NIF: 21678551Q

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