Asociación de Investigación de la Industria Textil – C.I.F.: G03182870

TEST REPORT

2024CN0984

DATE OF RECEPTION

Date Format: dd/MM/yyyy 19/08/2024

DATE OF TESTS

Starting : 04/09/2024

Ending: 19/09/2024

APPLICANT

KUNSHAN SUNSHINETEX NEW MATERIAL Co. Ltd.
No. 417 Sanxiang Road ndustry Zone
CN-215300 Kunshan
JIANGSU

China

REFERENCE OF SAMPLES

Reference by AITEX	Reference by customer	AITEX sample description
2024CN0798-S01	POBFD3XY	Fabric

TESTS CARRIED OUT

- PRE-TREATMENT FOR DOMESTIC WASHING AND DRYING PROCEDURES FOR TEXTILE TESTING
- DETERMINATION OF ABRASION RESISTANCE
- DETERMINATION OF TEAR RESISTANCE
- PUNCTURE RESISTANCE
- RESISTANCE OF MATERIALS TO PENETRATION BY LIQUID

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

DESCRIPTION OF SAMPLES



Reference by AITEX: 2024CN0798-S01

Reference by customer:

POBFD3XY

AITEX sample description:

Fabric

Information supplied by the customer

0.8% Polyamide,32.9% cotton, 48.2% modacrylic, 18.1% polyester
Weight: 380gsm
Color: Grey/Navy/Black/HV-yellow/HV-orange

AITEX Subsamples	Subsample Description
2024CN0798-S01_P1	POBFD3XY Fabric After 5 cycles

EXECUTIVE SUMMARY

	Reference	Test/Standard	Result
EN 13034:2005+A1:2009	2024CN0798-S01_P1	DETERMINATION OF ABRASION RESISTANCE **EN 530:2010 Mét.2**	LEVEL 6
		DETERMINATION OF TEAR RESISTANCE **EN ISO 9073-4:2021**	LEVEL 3
		PUNCTURE RESISTANCE **EN 863:1995**	LEVEL 2
		RESISTANCE OF MATERIALS TO PENETRATION BY LIQUID H2SO4 (30%) **EN ISO 6530:2005**	TESTED
		RESISTANCE OF MATERIALS TO PENETRATION BY LIQUID NaOH (10%) **EN ISO 6530:2005**	TESTED
		RESISTANCE OF MATERIALS TO PENETRATION BY LIQUID O-XILENO **EN ISO 6530:2005**	TESTED
		RESISTANCE OF MATERIALS TO PENETRATION BY LIQUID BUTAN-1-OL **EN ISO 6530:2005**	TESTED

REQUIREMENT SUMMARY

DETERMINATION OF ABRASION RESISTANCE

REQUIREMENT ACCORDING EN 13034:2005+A1:2009

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6
> 10 Cycles	> 100 Cycles	> 500 Cycles	> 1000 Cycles	> 1500 Cycles	> 2000 Cycles

DETERMINATION OF TEAR RESISTANCE

REQUIREMENT ACCORDING EN 13034:2005+A1:2009

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6
> 10N	> 20N	> 40N	> 60N	> 100N	> 150N

PUNCTURE RESISTANCE

REQUIREMENT ACCORDING EN 13034:2005+A1:2009

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6
> 5N	> 10N	> 50N	> 100N	> 150N	> 250N

RESISTANCE OF MATERIALS TO PENETRATION BY LIQUID

PERFORMANCE LEVEL ACCORDING EN 13034:2005+A1:2009

Classification of the repellency to the liquids according to standard EN 14325:2004

Class	Repellency Index
3	> 95 %
2	> 90 %
1	> 80 %

Classification to the penetration by liquids according to standard EN 14325:2004

Class	Penetration Index
3	< 1 %
2	< 5%
1	< 10 %

RESULTS

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

Standard

EN ISO 6330:2021

Test date

Start date 04/09/2024 **End date** 05/09/2024

Washing procedure

6N

Washing temperature

60ºC

Washing cycles

5

Dryer type

James Heal

Drying procedure

F (type A1 tumble drying)

Washing powder

Reference detergent 3

Reference

2024CN0798-S01

Units	Dry mass of the samples(Kg)	Counterweight mass*(Kg)*	Counterweight type	Equipment
1	1.8	0.2	Type III	WASCATOR
2	1.3	0.7	Type III	WASCATOR
3	1.75	0.25	Type III	WASCATOR
4	1.3	0.7	Type III	WASCATOR

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

Reference	Description
2024CN0798-S01	POBFD3XY

RESULTS

DETERMINATION OF ABRASION RESISTANCE

Standard

EN 530:2010 Mét.2

Equipment

Martindale Abrasimeter

Conditioned date

Start date 11/9/2024 **End date** 19/09/2024

Atmosphere for conditioning

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

Test pressure

9 KPa

Type of fabric

Woven fabric

End point

Two broken threads

Test conditions

Rubbing against abradant paper A65 or 240

Reference

2024CN0798-S01_P1

Specimen	Nº of cycles
1	N≥2000
2	N≥2000
3	N≥2000
4	N≥2000

Note

The end test is performed by visual inspection

The abrasive paper used in the test was A65 or 240, instead of Nº 00 as specified in the test standard, due to stock out

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

Reference	Description
2024CN0798-S01_P1	POBFD3XY Fabric After 5 cycles

RESULTS

DETERMINATION OF TEAR RESISTANCE

Standard

EN ISO 9073-4:2021

Equipment

INSTRON Dynamometer

Test date

Start date	11/09/2024	**End date**	19/09/2024

Conditioned date

Start date	11/9/2024	**End date**	19/09/2024

Atmosphere for conditioning

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

Number of test specimens per material to be tested

Tested	5	**Rejected**	0

Reference

2024CN0798-S01_P1

Tear	Specimen (N)	Average load	Classification value (N)	C.V.
Warp	84.5	**84**	49.8	3.1
	82.8			
	88.6			
	82.4			
	83			
Weft	52.5	**53**		6
	50.8			
	49.8			
	56.4			
	56			

Uncertainty

±3.9% assay value of the measured

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

Reference	Description
2024CN0798-S01_P1	POBFD3XY Fabric After 5 cycles

RESULTS

PUNCTURE RESISTANCE

Standard

EN 863:1995

Equipment

INSTRON dynamometer

Conditioned date

Start date 11/9/2024 **End date** 19/09/2024

Atmosphere for conditioning

Temperature (23 ± 2) ºC **Relative Humidity** (50 ± 5) %

Reference

2024CN0798-S01_P1

Test date

Start date 11/09/2024 **End date** 19/09/2024

Atmosphere for testing

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

Specimen	Maximum force (N)	Lower value
1	51.34	
2	70.17	51.34
3	61.12	
4	66.27	
5	73.96	

Uncertainty

±9.8% assay value of the measured

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

Reference	Description
2024CN0798-S01_P1	POBFD3XY Fabric After 5 cycles

RESULTS

RESISTANCE OF MATERIALS TO PENETRATION BY LIQUID

Standard

EN ISO 6530:2005

Test date

Start date 11/09/2024 **End date** 18/09/2024

Atmosphere for conditioning

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

Flow

10 ml in 10 s

Mass per unit area approximate of the sample tested

380 g/m² according to the customer

Reference

2024CN0798-S01_P1

Test liquid SULPHURIC ACID 30%

Trade name SCHARLAU (REF: AC20791000)

Boiling point 336.9 ºC

Evaporative losses prevision NONE

CLASSIFICATION ACCORDING TO STANDARD EN 14325:2004

Class according to repellency index: **3**
Class according to penetration index: **3**

Direction	Specimen	Penetration index (%)	Repellency index (%)	Absorption index (%)
Warp	1	0.0	98.9	1.1
	2	0.0	99.0	1.0
	3	0.0	98.8	1.2
Weft	1	0.0	98.9	1.1
	2	0.0	99.3	0.7
	3	0.0	98.7	1.3

Uncertainty of measurement.	
Penetration index (%)	Repellency index (%)
±1	±1

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

Reference	Description
2024CN0798-S01_P1	POBFD3XY Fabric After 5 cycles

RESULTS

RESISTANCE OF MATERIALS TO PENETRATION BY LIQUID

Standard

EN ISO 6530:2005

Test date

Start date 11/09/2024 **End date** 18/09/2024

Atmosphere for conditioning

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

Flow

10 ml in 10 s

Mass per unit area approximate of the sample tested

380 g/m² according to the customer

Reference

2024CN0798-S01_P1

Test liquid SODIUM HYDROXIDE 10%

Trade name MERCK (REF: 1055881000)

Boiling point 1389.8 ºC

Evaporative losses prevision NONE

CLASSIFICATION ACCORDING TO STANDARD EN 14325:2004

Class according to repellency index: **3**
Class according to penetration index: **3**

Direction	Specimen	Penetration index (%)	Repellency index (%)	Absorption index (%)
Warp	1	0.0	99.3	0.7
	2	0.0	99.5	0.5
	3	0.0	99.8	0.2
Weft	1	0.0	99.4	0.6
	2	0.0	99.5	0.5
	3	0.0	99.8	0.2

Uncertainty of measurement.	
Penetration index (%)	Repellency index (%)
±2	±2

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

Reference	Description
2024CN0798-S01_P1	POBFD3XY Fabric After 5 cycles

RESULTS

RESISTANCE OF MATERIALS TO PENETRATION BY LIQUID

Standard

EN ISO 6530:2005

Test date

Start date 11/09/2024 **End date** 18/09/2024

Atmosphere for conditioning

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

Flow

10 ml in 10 s

Mass per unit area approximate of the sample tested

380 g/m² according to the customer

Reference

2024CN0798-S01_P1

Test liquid O-XYLENE
Trade name SCHARLAU (REF: XI00252500)
Boiling point 144 ºC
Evaporative losses prevision NONE

CLASSIFICATION ACCORDING TO STANDARD EN 14325:2004

Class according to repellency index: **2**
Class according to penetration index: **3**

Direction	Specimen	Penetration index (%)	Repellency index (%)	Absorption index (%)
Warp	1	0.0	94.7	5.3
	2	0.0	95.1	4.9
	3	0.0	95.9	4.1
Weft	1	0.0	98.2	1.8
	2	0.0	97.4	2.6
	3	0.0	96.9	3.1

Uncertainty of measurement.	
Penetration index (%)	Repellency index (%)
±3	±3

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

Reference	Description
2024CN0798-S01_P1	POBFD3XY Fabric After 5 cycles

RESULTS

RESISTANCE OF MATERIALS TO PENETRATION BY LIQUID

Standard

EN ISO 6530:2005

Test date

Start date 11/09/2024 **End date** 18/09/2024

Atmosphere for conditioning

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

Flow

10 ml in 10 s

Mass per unit area approximate of the sample tested

380 g/m² according to the customer

Reference

2024CN0798-S01_P1

Test liquid 1-BUTANOL
Trade name SCHARLAU (REF: AL01732500)
Boiling point 117.9 ºC
Evaporative losses prevision NONE

CLASSIFICATION ACCORDING TO STANDARD EN 14325:2004

Class according to repellency index: **1**
Class according to penetration index: **3**

Direction	Specimen	Penetration index (%)	Repellency index (%)	Absorption index (%)
Warp	1	0.0	91.4	8.6
	2	0.0	89.1	10.9
	3	0.0	86.1	13.9
Weft	1	0.0	93.6	6.4
	2	0.0	86.5	13.5
	3	0.0	83.3	16.7

Uncertainty of measurement.	
Penetration index (%)	Repellency index (%)
±3	±3

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

Reference	Description
2024CN0798-S01_P1	POBFD3XY Fabric After 5 cycles

Lucia Martinez
Head of PPE and Ballistics department



Date: 30/09/2024 18:01:15
Digitally Signed by:LUCIA MARTINEZ MOLTO - NIF:21651425F

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