

Test Report No.: 0154168343b 0002

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Client: SHANGHAI XM GROUP LTD

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Zhongshan North Road, Shanghai, China

Contact Person: Anna He

Sample Description As Declared :

No. Of Sample : One(1)
Forma EX-180 ± 3% PES 65/35 CTN 2/1 58/59"
Sample Description : 180 GSM Grey

**Applicant's Provided
Care Instruction/Label:**



Sample Receiving date: 2023-05-16
Delivery condition: Apparent good, Samples tested as received
Test Period: 2023-05-16 to 2023-05-23

**For and on behalf of
TÜV Rheinland (Shanghai) Co., Ltd.**

2023-05-23 Tina Wu / Department Manager
Date Name/Position

*Test result is drawn according to the kind and extent of tests performed.
This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.*

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Conclusion

	<u>M001</u>
Dimensional Change To Washing	#
Tensile Strength – Strip Test	#
Tearing Strength – Wing Rip Tear	#
Abrasion Resistance	#
Colour Fastness To Washing	#
Colour Fastness To Rubbing	#
Colour Fastness To Light	#
Colour Fastness To Perspiration	#
Pilling Resistance	

Note : P = Pass

= No Comment

N/A = Not Applicable

F = Fail

- = Did Not Perform

* = See Remark

Material list

Material No.	Material	Color	Location
M001	Textile	Grey	Woven fabric

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1. Dimensional Change To Washing

Test method : ISO 3759:2011 / ISO 6330:2012 / ISO 5077:2007
 Apparatus : Front-loading horizontal rotating drum type
 Test condition : Washing programme 6N, at 60 °C, with 20g Non-phosphate detergent 3, 2kg loading (Type III), tumble dry - delicate

	<u>M001</u>
<u>After one wash</u>	
Warp	-2.2%
Weft	-0.9%

Remark: (+) = Extension
 (-) = Shrinkage

2. Colour Fastness To Washing

Test method : ISO 105-C06:2010
 Test condition : C2S, 30 min mechanical wash at 60°C in 0.4% ECE reference detergent with phosphates and 0.1% sodium perborate with 25 steel balls

	<u>M001</u>
Colour change	4-5
Colour staining	
- Triacetate	4-5
- Cotton	4-5
- Polyamide	4
- Polyester	4-5
- Acrylic	4-5
- Viscose	4-5

3. Colour Fastness To Rubbing

Test method : ISO 105-X12:2001

	<u>M001</u>
<u>Dry</u>	
- Length	4-5
- Width	4-5
<u>Wet</u>	
- Length	4
- Width	4

4. Colour Fastness To Perspiration

Test method : ISO 105-E04:2013

	<u>M001</u>	<u>Requirement</u>
	<u>Acid</u>	<u>Alkaline</u>
Colour change	4-5	4-5
Colour staining		
- Acetate	4-5	4-5
- Cotton	4-5	4-5
- Polyamide	4-5	4-5
- Polyester	4-5	4-5
- Acrylic	4-5	4-5
- Wool	4-5	4-5

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5. Colour Fastness To LightTest method : ISO 105-B02:2014, Method 2
Apparatus : Xenon arc lamp

<u>Up to Grade 4</u>	<u>M001</u>
Grade	4

6. Tensile Strength - Strip Test

Test method : ISO 13934-1:2013

	<u>M001</u>	<u>Requirement</u>
Warp	1200N	
Weft	540N	

7. Tearing Strength (Wing Rip Tear)

Test method : ISO 13937-3:2000

	<u>M001</u>	<u>Requirement</u>
Warp	38N	
Weft	30N	

8. Abrasion Resistance

Test method : ISO 12947-2:1998

	<u>M001</u>	<u>Requirement</u>
No. of Breakdown	>20000	

9. Pilling Resistance - Martindale MethodTest method : ISO 12945-2:2000
No. of rubs : 2000

	<u>M001</u>	<u>Requirement</u>
Rating	3-4	

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Sample Photos



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