

TEST REPORT

REPORT No.: R3XM191101F3396E

Date: December 16, 2019

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Xiamen U-Fly Bag Co., Ltd.
2/F No.71 Tongan Park, Tongan Industrial Zone, Xiamen, China.

Report on the submitted samples said to be:

Sample Name : Cooler bags
Style/Item No. : FRIO LINE
Product Application Scope : Men & Women
Fiber composition : 100% Polyester
Sample material : TEXTURE POLYESTER 210D/PU BACKING
Country of Origin : CHINA
Country of Destination : ITALY
Buyer : GIO STYLE s.p.a
Supplier : Xiamen U-Fly Bag Co., Ltd.
Sample/EUT Status : good condition
Sample Receiving Date : November 1, 2019
Testing Period : From November 1, 2019 to December 9, 2019
Result : Please refer to next page(s).

Signed for and on behalf of BACL

Checked by: Jenifer
Jenifer Yu
Technical Supervisor

Approved by: Fedor
Fedor Zhang
Laboratory Manager

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Summary of Test Result (as the requirement of Client):

TEST REQUEST

CONCLUSION

1	Azo-amines Content	Pass
2	Phthalates Content (Tested parts are required partially by client)	Pass
3	PFOA Content	Pass
4	PVC Content	Pass
5	Regulation(EC) No.1935/2004 of the European Parliament and Regulation (EU) No 10/2011 and its amendment directives on materials and articles intended to come into contact with food	
	5.1 Overall Migration	Pass
	5.2 Specific migration of heavy metal	Pass
6	Seam Strength	Pass
7	Capacity	Data

Pass = Meet the Requirement of Client.

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Result:

Tested part(s): (only for test Item 1-4)

- | | |
|--|--|
| 1. Black plastic(adjustable buckle①②③/square buckle①②) | 10. Blue mesh fabric(side extension)② |
| 2. Blue plastic(zipper teeth)①②③ | 11. Blue elastic(side extension binding)② |
| 3. Blue fabric(zipper fabric)①②③ | 12. Green mesh fabric(side extension)③ |
| 4. LT. blue fabric(body①/side body①/back of body ③/shoulder strap③/top of body reinforcement③) | 13. Green elastic (side extension binding)③ |
| 5. Red fabric(back of body①/top of body reinforcement①/body②/top of body②③/bottom of body②③) | 14. Green plastic(top of body binding)① |
| 6. Green fabric(top of body①/bottom of body①/side body②/back of body②/top of body reinforcement ②/body③) | 15. LT. blue plastic(top of body binding)② |
| 7. Blue webbing(strap①②③/body handle③/body reinforcement①②) | 16. Red plastic(top of body binding)③ |
| 8. Red mesh fabric(side extension)① | 17. White plastic(lining①②③/lining binding①②③ /pad①②③/lining reinforcement①②③) |
| 9. Red elastic(side extension binding)① | 18. White non woven(body interlining①②③/pad interlining①②③/shoulder strap interlining③) |
| | 19. White Pearl foam(body interlining①②③/pad interlining①②③/shoulder strap interlining③) |
| | 20. Grey paper board(pad interlining)①②③ |
| | 21. Blue coating(body logo)①②③ |
| | 22. White plastic film(15c PEVA) |

Remark: ①Style1: handbag(blue)
②Style2: handbag(red)
③Style3: backpack

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1. Azo Colorants Content

Test method: With reference to ISO 14362-1:2017(for textile) or ISO 17234-1:2015(for leather), Analysis was performed by Gas Chromatographic-Mass Spectrometer (GC-MS) and High Performance Liquid Chromatography with Diode Array Detector (HPLC-DAD).

Item	Unit	MDL	Result			Client's Limit
			3+4	5+6	7+8+9	
Azo Colorants content	mg/kg	5	N.D.	N.D.	N.D.	Each 30
Conclusion	/	/	Pass	Pass	Pass	/

Item	Unit	MDL	Result		Client's Limit
			10+12+13	11	
Azo Colorants content	mg/kg	5	N.D.	N.D.	Each 30
Conclusion	/	/	Pass	Pass	/

Note:

- N.D. = Not Detected or less than MDL
- MDL = Method Detection Limit
- mg/kg = ppm
- "+" = Mixed, The admixture of specimen is tested as a whole(part) which according to the applicant's request, the result of report as average value because of the whole specimen is regarded as constituting from the homogeneous material. If the testing of specimen may have the obvious difference, and the result may exceed the number in this report. The applicant will undertake all differences and risk.
- *: The ISO 14362-1:2017 & ISO 17234-1:2015 method(s) will enable further cleavage of 4-aminoazobenzene to non-forbidden amines: aniline or 1, 4-phenylenediamine. If the test result for 4-aminoazobenzene (CAS No. 60-09-3) is considered as "Not Detected" since both aniline and / or 1,4-phenylenediamine is not found by mentioned test method. Otherwise the test method(s) of ISO 14362-3: 2017, ISO 17234-2:2011 is(are) employed to verify the presence of 4-aminoazobenzene.
- The list of aromatic amines in Azo colorants is summarized in table of Appendix I.
- Photo appendix II is included.

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2. Phthalates Content (Tested parts are required partially by client)

Test method: With reference to ISO/TS 16181:2011, by solvent extraction and analysis was performed by Gas Chromatographic-Mass Spectrometer (GC-MS).

Item	Unit	MDL	Results				Client's Limit
			1+2	9+13	11	14+15+16	
Dibutyl Phthalate (DBP)	%	0.003	N.D.	N.D.	N.D.	N.D.	---
Benzylbutyl Phthalate (BBP)	%	0.003	N.D.	N.D.	N.D.	N.D.	---
Bis-(2-ethylhexyl) Phthalate (DEHP)	%	0.003	N.D.	N.D.	N.D.	N.D.	---
Diisobutyl Phthalate(DIBP)	%	0.003	N.D.	N.D.	N.D.	N.D.	---
DBP + BBP + DEHP + DIBP	%	/	N.D.	N.D.	N.D.	N.D.	0.1
Di-n-octyl Phthalate (DNOP)	%	0.003	N.D.	N.D.	N.D.	N.D.	---
Diisononyl Phthalate (DINP)	%	0.01	N.D.	N.D.	N.D.	N.D.	---
Diisodecyl Phthalate (DIDP)	%	0.01	N.D.	N.D.	N.D.	N.D.	---
DNOP + DINP +DIDP	%	/	N.D.	N.D.	N.D.	N.D.	0.1
Conclusion	/	/	Pass	Pass	Pass	Pass	/

Item	Unit	MDL	Results					Client's Limit
			17	18	19	20	21	
Dibutyl Phthalate (DBP)	%	0.003	N.D.	N.D.	N.D.	N.D.	N.D.	---
Benzylbutyl Phthalate (BBP)	%	0.003	N.D.	N.D.	N.D.	N.D.	N.D.	---
Bis-(2-ethylhexyl) Phthalate (DEHP)	%	0.003	N.D.	N.D.	N.D.	N.D.	N.D.	---
Diisobutyl Phthalate(DIBP)	%	0.003	N.D.	N.D.	N.D.	N.D.	N.D.	---
DBP + BBP + DEHP + DIBP	%	/	N.D.	N.D.	N.D.	N.D.	N.D.	0.1
Di-n-octyl Phthalate (DNOP)	%	0.003	N.D.	N.D.	N.D.	N.D.	N.D.	---
Diisononyl Phthalate (DINP)	%	0.01	N.D.	N.D.	N.D.	N.D.	N.D.	---
Diisodecyl Phthalate (DIDP)	%	0.01	N.D.	N.D.	N.D.	N.D.	N.D.	---
DNOP + DINP +DIDP	%	/	N.D.	N.D.	N.D.	N.D.	N.D.	0.1
Conclusion	/	/	Pass	Pass	Pass	Pass	Pass	/

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Note:

- N.D. = Not Detected or less than MDL
- MDL = Method Detection Limit
- 0.1% = 1000mg/kg, mg/kg = ppm
- "+" = Mixed, The admixture of specimen is tested as a whole(part) which according to the applicant's request, the result of report as average value because of the whole specimen is regarded as constituting from the homogeneous material. If the testing of specimen may have the obvious difference, and the result may exceed the number in this report. The applicant will undertake all differences and risk.
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3. PFOA Content

Test method: With reference to DIN CEN/TS 15968-2010, analysis was performed by Liquid Chromatographic-Mass Spectrometer (LC-MS).

Item	CAS No.	Unit	MDL	Results				Client's Limit
				3	4	5	6	
PFOA Content	335-67-1	ppb	2.5	N.D.	N.D.	N.D.	N.D.	1000
Conclusion	/	/	/	Pass	Pass	Pass	Pass	/

Item	CAS No.	Unit	MDL	Results				Client's Limit
				7	8	9	10	
PFOA Content	335-67-1	ppb	2.5	N.D.	N.D.	N.D.	N.D.	1000
Conclusion	/	/	/	Pass	Pass	Pass	Pass	/

Item	CAS No.	Unit	MDL	Results				Client's Limit
				11	12	13	18	
PFOA Content	335-67-1	ppb	2.5	N.D.	N.D.	N.D.	N.D.	1000
Conclusion	/	/	/	Pass	Pass	Pass	Pass	/

Note:

- N.D. = Not Detected or less than MDL
- MDL = Method Detection Limit
- ug/kg = ppb
- Photo appendix II is included.

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4. PVC Content

Test method: With reference to DIN EN ISO 6401:2008-12, analysis was performed by FT-IR.

Items	Result					Client's Limit
	1	2	3	4	5	
PVC content	Negative	Negative	Negative	Negative	Negative	Negative
Conclusion	Pass	Pass	Pass	Pass	Pass	/

Items	Result				Client's Limit
	6	7	8	9	
PVC content	Negative	Negative	Negative	Negative	Negative
Conclusion	Pass	Pass	Pass	Pass	/

Items	Result				Client's Limit
	10	11	12	13	
PVC content	Negative	Negative	Negative	Negative	Negative
Conclusion	Pass	Pass	Pass	Pass	/

Items	Result				Client's Limit
	14	15	16	17	
PVC content	Negative	Negative	Negative	Negative	Negative
Conclusion	Pass	Pass	Pass	Pass	/

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Items	Result			Client's Limit
	18	19	20	
PVC content	Negative	Negative	Negative	Negative
Conclusion	Pass	Pass	Pass	/

Note:

- Negative=Absence
- Positive=Presence
- Photo appendix II is included.

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5.1: Overall Migration

Test method: With reference to EN1186-1: 2002 for selection of conditions and test methods: EN1186-3: 2002 aqueous food simulates by total immersion methods;

Simulant Used	Unit	MDL	Results	Limit
			22	
3% acetic acid at 40°C 10 days	mg/dm ²	3	N.D.	10
10% Ethanol at 40°C for 10 days	mg/dm ²	3	N.D.	10
Isooctane at 20°C for 2 days	mg/dm ²	3	N.D.	10
95% Ethanol at 40°C for 10 days	mg/dm ²	3	N.D.	10
Conclusion	/	/	Pass	/

Note:

- N.D. = Not Detected or less than MDL
- MDL = Method Detection Limit
- Photo appendix is included.

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5.2: Specific migration of Heavy Metals

Test method: With reference to 3% acetic acid at 40°C for 24 hours, Analysis was performed by inductively coupled plasma optical emission spectrometer (ICP-OES)

Item	Unit	MDL	Results	Maximum permissible Limit
			22	
Specific migration of Barium (Ba)	mg/kg	0.1	N.D.	1
Specific migration of Ferrum(Fe)	mg/kg	1	N.D.	48
Specific migration of Lithium (Li)	mg/kg	0.1	N.D.	0.6
Specific migration of Zinc(Zn)	mg/kg	1	N.D.	5
Specific migration of Copper(Cu)	mg/kg	1	N.D.	5
Specific migration of Cobalt(Co)	mg/kg	0.05	N.D.	0.05
Specific migration of Manganese(Mn)	mg/kg	0.05	N.D.	0.6
Specific migration of Aluminum(Al)	mg/kg	0.05	N.D.	1
Specific migration of nickel(Ni)	mg/kg	0.02	N.D.	0.02
Specific migration of Tungsten(W)	mg/kg	0.05	N.D.	0.05
Conclusion	/	/	Pass	/

Test method: With reference to 10% ethanol at 40°C for 24 hours, Analysis was performed by inductively coupled plasma optical emission spectrometer (ICP-OES)

Item	Unit	MDL	Results	Maximum permissible Limit
			22	
Specific migration of Barium (Ba)	mg/kg	0.1	N.D.	1
Specific migration of Ferrum(Fe)	mg/kg	1	N.D.	48
Specific migration of Lithium (Li)	mg/kg	0.1	N.D.	0.6
Specific migration of Zinc(Zn)	mg/kg	1	N.D.	5
Specific migration of Copper(Cu)	mg/kg	1	N.D.	5
Specific migration of Cobalt(Co)	mg/kg	0.05	N.D.	0.05
Specific migration of Manganese(Mn)	mg/kg	0.05	N.D.	0.6
Specific migration of Aluminum(Al)	mg/kg	0.05	N.D.	1
Specific migration of nickel(Ni)	mg/kg	0.02	N.D.	0.02
Specific migration of Tungsten(W)	mg/kg	0.05	N.D.	0.05
Conclusion	/	/	Pass	/

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Note:

- N.D. = Not Detected or less than MDL
- MDL = Method Detection Limit
- Photo appendix is included.

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Result:

Tested part(s): (only for test Item 6-7)

- | | |
|------------------|--------------|
| (1) Blue handbag | (3) Backpack |
| (2) Red handbag | |

6. Seam Strength (ISO 13935-2:2014)

Client's Requirement

	(1)	
Lining Seam(N)	101(material tear at the seam)	
Side Seam(N)	270 (breakage of sewing threads)	≥100 N
Bottom Seam(N)	230 (fabric tear at the seam)	
Conclusion	Pass	/

7. Capacity (UNI EN 12546-2:2001)

Client's Requirement

	(1)	(2)	(3)	
	19.6L	19.6L	19.8L	--
Conclusion	--	--	--	

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Appendix I

List of Amines in Azo Dyestuff:

No.	Item	CAS No.	No.	Item	CAS No.
1	4-aminobiphenyl/xenylamine/Biphenyl-4-yl amine	92-67-1	12	3,3'-dimethylbenzidine/4,4'-bi-o-Toluidine	119-93-7
2	Benzidine	92-87-5	13	3,3'-dimethyl-4,4'-diaminodiphenylmethane/ 4,4'-methylenedi-o-toluidine	838-88-0
3	4-chloro-o-toluidine	95-69-2	14	p-cresidine/6-methoxy-m-toluidine	120-71-8
4	2-naphthylamine	91-59-8	15	4,4'-methylene-bis-(2-chloro-aniline)/ 2,2'-dichloro-4,4'methylene-dianiline	101-14-4
5	o-aminoazotoluene/4-o-tolylazo-o-toluidine /4-amino-2',3-dimethylazobenzene	97-56-3	16	4,4'-oxydianiline	101-80-4
6	5-nitro-o-toluidine/2-amino-4-nitrotoluene	99-55-8	17	4,4'-thiodianiline	139-65-1
7	p-chloraniline/4-chloroaniline	106-47-8	18	o-toluidine/2-aminotoluene	95-53-4
8	2,4-diaminoanisole/ 4-methoxy-m-phenylenediamine	615-05-4	19	2,4-toluyldiamine/2,4-diaminotoluene/4-methyl-m-phenylenediamine	95-80-7
9	4,4'-diaminodiphenylmethane/ 4,4'-methylenedianiline	101-77-9	20	2,4,5-trimethylaniline	137-17-7
10	3,3'-dichlorobenzidine/ 3,3'dichlorobiphenyl-4,4'-ylenediamine	91-94-1	21	o-anisidine/ 2-methoxyaniline	90-04-0
11	3,3'-dimethoxybenzidine/o-dianisidine	119-90-4	22	4-aminoazobenzene*	60-09-3
CAS No.=Chemical Abstracts Service Registry Number					

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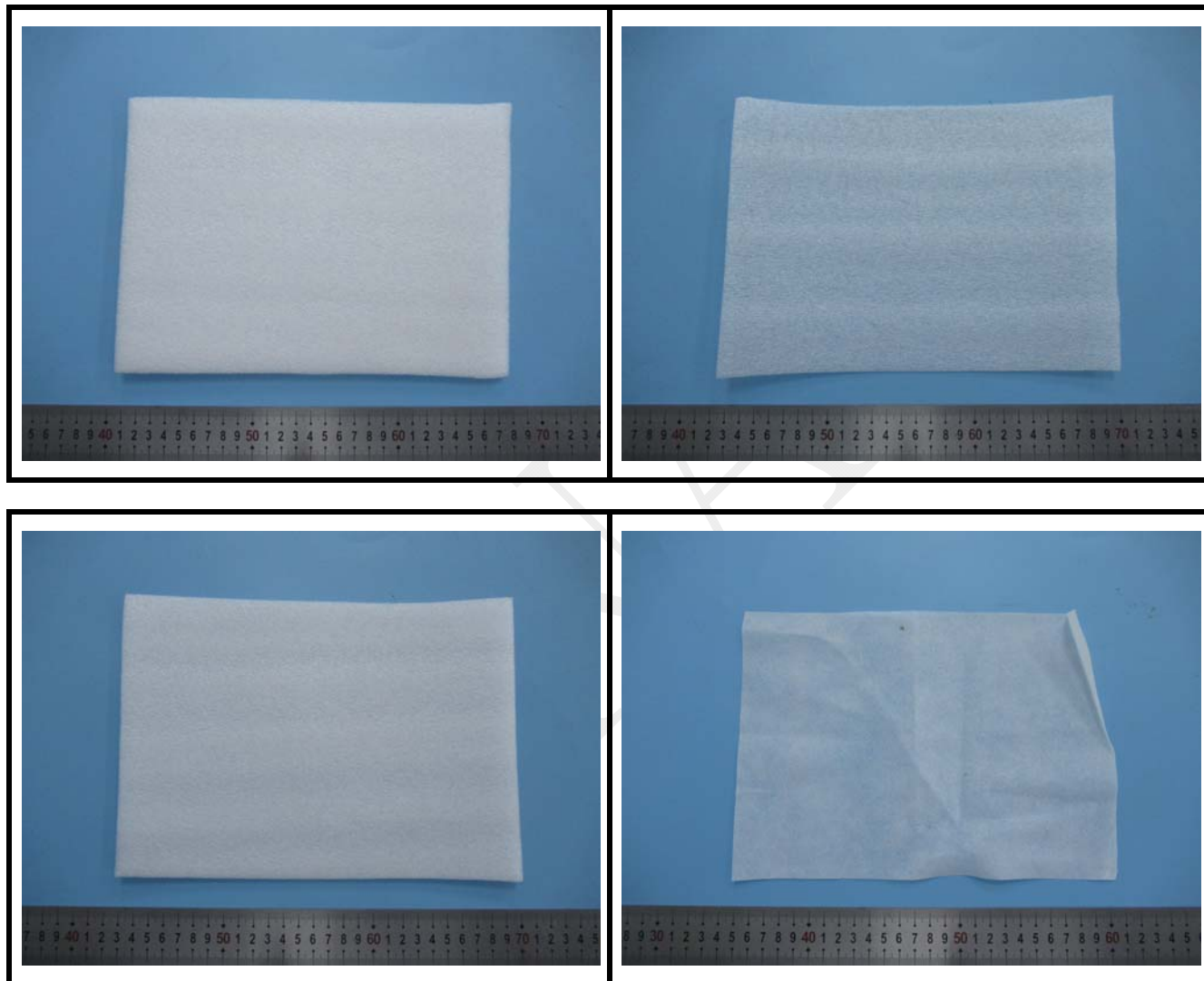
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Appendix II

Photograph of Sample (For Chemical Performance)

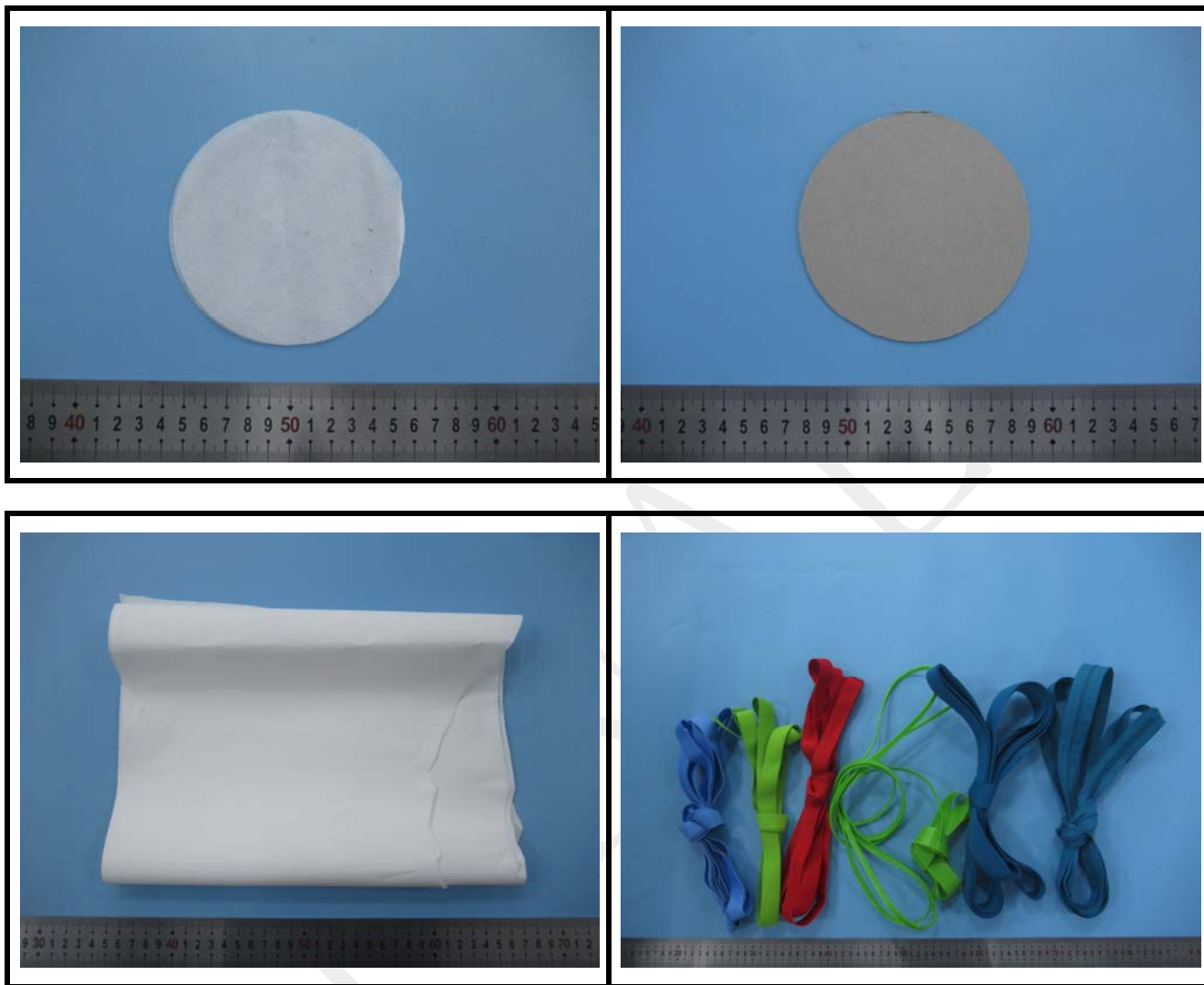


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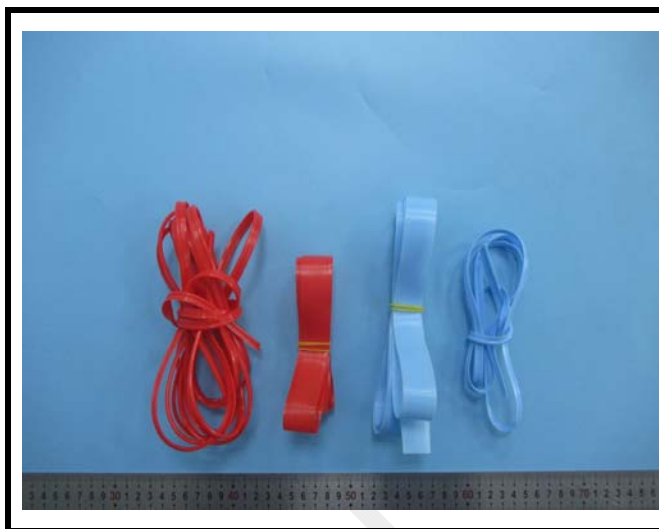
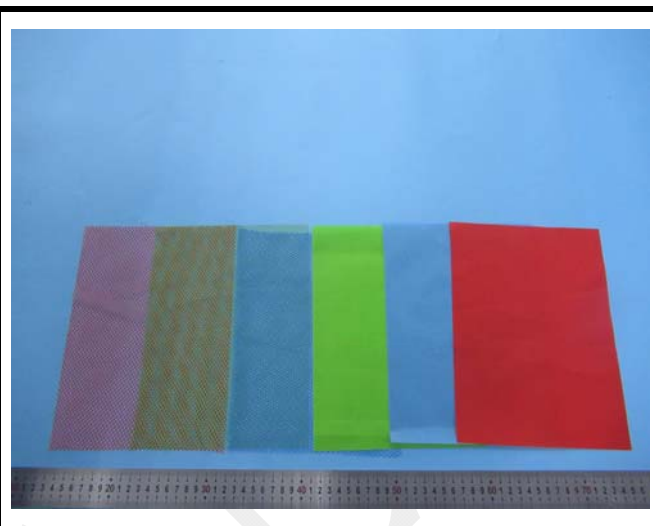
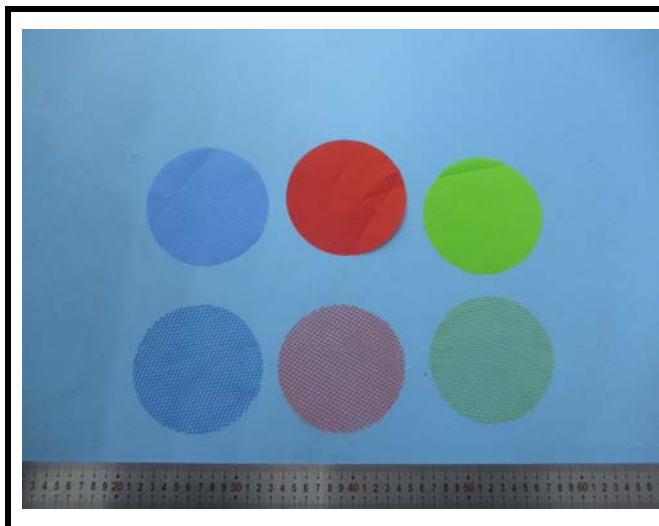


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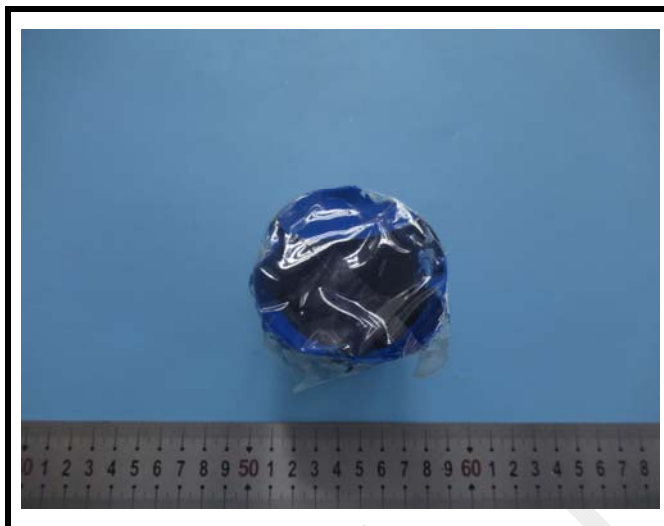


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Photograph of Sample (For Physical Performance)



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Directions:

1. This report cannot be reproduced except in full, without prior written approval of the Company.
2. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.
3. This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.
4. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.
5. The information which provided by the applicant, such as sample description, sample name, material component, style/item No. , P.O. No. , manufacture, age phase, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report.
6. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.
7. The items used italic in the report was revised due to the applicant's requirements, The items used bold type in the report was revised due to typo.

*** End of Report ***