

SUBJECT Chemical Test

TEST LOCATION TÜV SÜD China

TÜV SÜD Products Testing (Shanghai) Co., Ltd.
B-3/4, No.1999 Du Hui Road, Minhang District
Shanghai 201108, P.R. China

CLIENT NAME Bibo Brands

CLIENT ADDRESS Torenplein 7.16.1 3500 Hasselt, Belgium

TEST PERIOD 18-Mar-2025~02-Apr-2025

RESULT SUMMARY Please see the next page

Prepared By



(Gao Ju)
Report Drafter

Authorized By



(Feng Liyun)
Authorized Signatory

Note: (1) The TÜV SÜD Certification and Testing (China) Co., Ltd. "General Terms & Conditions" applied." .For full version, please visit:
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(2) The results in this report are relevant only to the sample(s) tested.

(3) The test report may not be reproduced either in part or in full.

(4) Disclaimer Measurement Uncertainty:

Unless otherwise agreed upon, Pass or Fail verdicts are given based on the measured values without any considerations of measurement uncertainties.

Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements.

By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

(5) The testing report without CMA stamp is not legally binding and could only be used as internal reference material for the applicant. It shall not be provided as a notarial certification.

RESULT SUMMARY

1. The tested items **complied with** GB 4806.7-2023 National Food Safety Standard Plastic Materials and Articles Intended to Come into Contact with Food.
 - Sensory requirements **001~005 PASS**
 - Overall migration **001~005 PASS**
 - Potassium Permanganate Consumption **001~005 PASS**
 - Heavy metal (as Pb) **001~005 PASS**
 - Decoloring testing **001~005 PASS**
 - Specific migration of Primary Aromatic Amine **001~005 PASS**
 - Specific migration of Formaldehyde **002~003 PASS**
 - Specific migration of Hexamethylenediamine **004 PASS**
 - Specific Migration of Terephthalic acid **005 PASS**
2. The tested items **complied with** GB 4806.11-2016 National Food Safety Standard Rubber Materials and Articles Intended to Come into Contact with Food.
 - Sensory requirements **006~007 PASS**
 - Overall migration **006~007 PASS**
 - Potassium Permanganate Consumption **006~007 PASS**
 - Heavy metal (as Pb) **006~007 PASS**
3. The tested items **complied with** GB 4806.9-2023 National Food Safety Standard Metal Materials and Articles Intended to Come into Contact with Food.
 - Sensory requirements **008 PASS**
 - Specific migration of metallic element **008 PASS**

SAMPLE SOURCE/ RECEIPT DATE / TEST DATE

Logistics Express / 18-Mar-2025/ 18-Mar-2025

THE FOLLOWING SAMPLE(S) WAS/WERE SUBMITTED

BY/ ON BEHALF OF THE CLIENTS AS

Sample Name: Kambukka Elton
Sample Type/ Specification: 12-03006
Batch No./Date: /
Manufacturer: /
PO No.: IO25-0002
Country of origin: China

SAMPLE NO.	TEST PART	DESCRIPTION	PHOTOGRAPH
7216001873-1	001	White plastic	
7216001873-2	002	Black plastic	
7216001873-3	003	Red plastic	
7216001873-4	004	Black plastic	
7216001873-5	005	Plastic body	
7216001873-6	006	Red silicone	
7216001873-7	007	Black silicone	

7216001873-8	008	Silvery metal	
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TEST RESULT(S)

Note: The migration results in this report were tested and expressed based on repeated use articles

1. Sensory requirements

- In accordance with GB 4806.7-2023 National Food Safety Standard Plastic Materials and Articles Intended to Come into Contact with Food

Test Item(s)	Test Result(s)	Index	Comment
	001		
Sensory	Normal color; No abnormal odor; No impurity.	Normal color; No abnormal odor; No impurity and so on.	PASS
Soaking solution	Soaking solutions obtained from the migration test have no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	Soaking solutions obtained from the migration test should have no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	PASS

Test Item(s)	Test Result(s)	Index	Comment
	002		
Sensory	Normal color; No abnormal odor; No impurity.	Normal color; No abnormal odor; No impurity and so on.	PASS
Soaking solution	Soaking solutions obtained from the migration test have no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	Soaking solutions obtained from the migration test should have no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	PASS

Test Item(s)	Test Result(s)	Index	Comment
	003		
Sensory	Normal color; No abnormal odor; No impurity.	Normal color; No abnormal odor; No impurity and so on.	PASS
Soaking solution	Soaking solutions obtained from the migration test have no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	Soaking solutions obtained from the migration test should have no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	PASS

Test Item(s)	Test Result(s)	Index	Comment
	004		
Sensory	Normal color; No abnormal odor; No impurity.	Normal color; No abnormal odor; No impurity and so on.	PASS
Soaking solution	Soaking solutions obtained from the migration test have no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	Soaking solutions obtained from the migration test should have no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	PASS

Test Item(s)	Test Result(s)	Index	Comment
	005		
Sensory	Normal color; No abnormal odor; No impurity.	Normal color; No abnormal odor; No impurity and so on.	PASS
Soaking solution	Soaking solutions obtained from the migration test have no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	Soaking solutions obtained from the migration test should have no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	PASS

- In accordance with GB 4806.11-2016 National Food Safety Standard Rubber Materials and Articles Intended to Come into Contact with Food.

Test Item(s)	Test Result(s)	Index	Comment
	006		
Sensory	Normal color; No abnormal odor; No dirt.	Normal color; No abnormal odor; No dirt.	PASS
Soaking solution	Soaking solutions obtained from the migration test have no coloring, no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	Soaking solutions obtained from the migration test should have no coloring, no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	PASS

Test Item(s)	Test Result(s)	Index	Comment
	007		
Sensory	Normal color; No abnormal odor; No dirt.	Normal color; No abnormal odor; No dirt.	PASS
Soaking solution	Soaking solutions obtained from the migration test have no coloring, no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	Soaking solutions obtained from the migration test should have no coloring, no turbidity, no precipitate, no abnormal odor and other sensory deterioration.	PASS

- In accordance with GB 4806.9-2023 National Food Safety Standard Metal Materials and Articles Intended to Come into Contact with Food.

Test Item(s)	Test Result(s)	Index	Comment
	008		
Sensory	The surface in contact with food is clean, the coating has no cracks or peeling; welding part is smooth without pores, cracks or burrs.	The surface in contact with food should be properly cleaned, the coating should not have cracks or peeling; welding part should be smooth without pores, cracks or burrs.	PASS
Soaking solution	Soaking solution obtained from the migration test has no abnormal odor.	Soaking solution obtained from the migration test should have no abnormal odor.	PASS

2. Overall migration

- Test method with reference to GB 31604.1-2023 National Food Safety Standard General principles on the determination of migration tests for food contact materials and articles; GB 5009.156-2016 National Food Safety Standard General principles on the pretreatment of migration tests for food contact materials and articles 10.3 Total immersion method and 10.2.1 Filling method General method; GB 31604.8-2021 National Food Safety Standard Food contact materials and articles Determination of Overall migration
- Sample 001 migration ratio(S/V): 1.20dm²/770ml
 - Sample 002 migration ratio(S/V): 0.708dm²/770ml
 - Sample 003 migration ratio(S/V): 0.317dm²/770ml
 - Sample 004 migration ratio(S/V): 0.195dm²/770ml
 - Sample 005 migration ratio(S/V): 5.20dm²/770ml
 - Sample 006 migration ratio(S/V): 0.0968dm²/770ml
 - Sample 007 migration ratio(S/V): 0.208dm²/770ml

Simulant(s) Used	Test Condition	Result(s) [mg/dm ²]	Maximum Permissible Limit [mg/dm ²]	Comment
		001 1#		
4% Acetic acid	70°C for 2 hours	<3.0	10	PASS
50% Ethanol	70°C for 2 hours	<3.0	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/dm ²]	Maximum Permissible Limit [mg/dm ²]	Comment
		002 2#		
4% Acetic acid	70°C for 2 hours	<3.0	10	PASS
50% Ethanol	70°C for 2 hours	<3.0	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/dm ²]	Maximum Permissible Limit [mg/dm ²]	Comment
		003 3#		
4% Acetic acid	70°C for 2 hours	<3.0	10	PASS
50% Ethanol	70°C for 2 hours	<3.0	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/dm ²]	Maximum Permissible Limit [mg/dm ²]	Comment
		004 4#		
4% Acetic acid	70°C for 2 hours	<3.0	10	PASS
50% Ethanol	70°C for 2 hours	<3.0	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/dm ²]	Maximum Permissible Limit [mg/dm ²]	Comment
		005		
4% Acetic acid	70°C for 2 hours	<3.0	10	PASS
50% Ethanol	70°C for 2 hours	<3.0	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/dm ²]	Maximum Permissible Limit [mg/dm ²]	Comment
		006 5#		
4% Acetic acid	70°C for 2 hours	<3.0	10	PASS
50% Ethanol	70°C for 2 hours	<3.0	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/dm ²]	Maximum Permissible Limit [mg/dm ²]	Comment
		007 6#		
4% Acetic acid	70°C for 2 hours	<3.0	10	PASS
50% Ethanol	70°C for 2 hours	<3.0	10	PASS

- Note:
- 1#denotes the result was calculated by assuming that the sample is used for inner surface of 5.20dm² food container with a food contact surface of approx. 1.20dm²
 - 2#denotes the result was calculated by assuming that the sample is used for inner surface of 5.20dm² food container with a food contact surface of approx. 0.708dm²
 - 3#denotes the result was calculated by assuming that the sample is used for inner surface of 5.20dm² food container with a food contact surface of approx. 0.317dm²
 - 4#denotes the result was calculated by assuming that the sample is used for inner surface of 5.20dm² food container with a food contact surface of approx. 0.195dm²
 - 5#denotes the result was calculated by assuming that the sample is used for inner surface of 5.20dm² food container with a food contact surface of approx. 0.0968dm²
 - 6#denotes the result was calculated by assuming that the sample is used for inner surface of 5.20dm² food container with a food contact surface of approx. 0.208dm²

3. Potassium Permanganate Consumption

- Test method with reference to GB 5009.156-2016 National Food Safety Standard General principles on the pretreatment of migration tests for food contact materials and articles 10.3 Total immersion method and 10.2.1 Filling method General method; GB 31604.2-2016 National Food Safety Standard Food contact materials and articles Determination of Consumption of potassium permanganate
- Sample 001 migration ratio(S/V): 1.20dm²/770ml
- Sample 002 migration ratio(S/V): 0.708dm²/770ml
- Sample 003 migration ratio(S/V): 0.317dm²/770ml
- Sample 004 migration ratio(S/V): 0.195dm²/770ml
- Sample 005 migration ratio(S/V): 5.20dm²/770ml
- Sample 006 migration ratio(S/V): 0.0968dm²/770ml
- Sample 007 migration ratio(S/V): 0.208dm²/770ml

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		001		
Distilled water	60°C for 2 hours	2.2	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		002		
Distilled water	60°C for 2 hours	1.8	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		003		
Distilled water	60°C for 2 hours	0.90	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		004		
Distilled water	60°C for 2 hours	1.5	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		005		
Distilled water	60°C for 2 hours	1.3	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		006		
Water	60°C for 0.5 hour	1.7	10	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		007		
Water	60°C for 0.5 hour	2.4	10	PASS

4. Heavy metal (as Pb)

- Test method with reference to GB 5009.156-2016 National Food Safety Standard General principles on the pretreatment of migration tests for food contact materials and articles 10.3 Total immersion method and 10.2.1 Filling method General method; GB 31604.9-2016 National Food Safety Standard Food contact materials and articles Determination of Heavy metal in food simulants The first method
- Sample 001 migration ratio(S/V): 1.20dm²/770ml
- Sample 002 migration ratio(S/V): 0.708dm²/770ml
- Sample 003 migration ratio(S/V): 0.317dm²/770ml
- Sample 004 migration ratio(S/V): 0.195dm²/770ml
- Sample 005 migration ratio(S/V): 5.20dm²/770ml
- Sample 006 migration ratio(S/V): 0.0968dm²/770ml
- Sample 007 migration ratio(S/V): 0.208dm²/770ml

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		001		
4% Acetic acid	60°C for 2 hours	<1.0	1	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		002		
4% Acetic acid	60°C for 2 hours	<1.0	1	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		003		
4% Acetic acid	60°C for 2 hours	<1.0	1	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		004		
4% Acetic acid	60°C for 2 hours	<1.0	1	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		005		
4% Acetic acid	60°C for 2 hours	<1.0	1	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		006		
4% Acetic acid	60°C for 0.5 hour	<1.0	1	PASS

Simulant(s) Used	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		007		
4% Acetic acid	60°C for 0.5 hour	<1.0	1	PASS

5. Decoloring test

- Test method with reference to GB 31604.7-2023 Food safety national standard Food contact materials and articles Decoloring testing

Test Item(s)	Result(s)	Maximum Permissible Limit	Comment
	001		
Soaking Coloring	Negative	Negative	PASS
Wipe Coloring	Negative	Negative	PASS

Test Item(s)	Result(s)	Maximum Permissible Limit	Comment
	002		
Soaking Coloring	Negative	Negative	PASS
Wipe Coloring	Negative	Negative	PASS

Test Item(s)	Result(s)	Maximum Permissible Limit	Comment
	003		
Soaking Coloring	Negative	Negative	PASS
Wipe Coloring	Negative	Negative	PASS

Test Item(s)	Result(s)	Maximum Permissible Limit	Comment
	004		
Soaking Coloring	Negative	Negative	PASS
Wipe Coloring	Negative	Negative	PASS

Test Item(s)	Result(s)	Maximum Permissible Limit	Comment
	005		
Soaking Coloring	Negative	Negative	PASS
Wipe Coloring	Negative	Negative	PASS

6. Specific migration of Primary Aromatic Amine

- Test method with reference to GB 31604.1-2023 National Food Safety Standard General principles on the determination of migration tests for food contact materials and articles; GB 5009.156-2016 National Food Safety Standard General principles on the pretreatment of migration tests for food contact materials and articles 10.3 Total immersion method and 10.2.1 Filling method General method; GB 31604.52-2021 National Food Safety Standard Food contact materials and articles Determination of specific migration of Primary Aromatic Amine
- Test condition: 4% Acetic acid, 70°C 2 hours +40°C 24 hours
- Sample 001 migration ratio(S/V): 1.20dm²/770ml
- Sample 002 migration ratio(S/V): 0.708dm²/770ml
- Sample 003 migration ratio(S/V): 0.317dm²/770ml
- Sample 004 migration ratio(S/V): 0.195dm²/770ml
- Sample 005 migration ratio(S/V): 5.20dm²/770ml

Test Item(s)	CAS No.	Test Result(s) [mg/kg]	Detection Limit [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		001			
p-Phenylenediamine	106-50-3	ND	0.001	--	--
1,3-Phenylenediamine	108-45-2	ND	0.001	--	--
2,4-Diaminotoluene	95-80-7	ND	0.001	--	--
4,4'-oxydianiline	101-80-4	ND	0.001	--	--
benzidine	92-87-5	ND	0.001	--	--
4,4'-diaminodiphenylmethane	101-77-9	ND	0.001	--	--
Aniline	62-53-3	ND	0.001	--	--
o-anisidine	90-04-0	ND	0.001	--	--
o-toluidine	95-53-4	ND	0.001	--	--
4,4'-methylenedi-o-toluidine	838-88-0	ND	0.001	--	--
3,3'-dimethoxybenzidine	119-90-4	ND	0.001	--	--
3,3'-dimethylbenzidine	119-93-7	ND	0.001	--	--
2,6-dimethylaniline	87-62-7	ND	0.001	--	--
2,4'-methylenedianiline	1208-52-2	ND	0.001	--	--
4-methoxy-m-phenylenediamine	615-05-4	ND	0.001	--	--
p-cresidine	120-71-8	ND	0.001	--	--

2,4,5-trimethylaniline	137-17-7	ND	0.001	--	--
4,4'-thiodianiline	139-65-1	ND	0.001	--	--
4-chloroaniline	106-47-8	ND	0.001	--	--
2,4-dimethyl aniline	95-68-1	ND	0.001	--	--
2-naphthylamine	91-59-8	ND	0.001	--	--
2,2'-methylenedianiline	6582-52-1	ND	0.001	--	--
4-aminobiphenyl	92-67-1	ND	0.001	--	--
4-chloro-o-toluidine	95-69-2	ND	0.001	--	--
5-nitro-o-toluidine	99-55-8	ND	0.001	--	--
3,3'-dichlorobenzidine	91-94-1	ND	0.001	--	--
4-aminoazobenzene	60-09-3	ND	0.001	--	--
4,4'-methylene-bis- (2-chloro-aniline)	101-14-4	ND	0.001	--	--
o-aminoazotoluene	97-56-3	ND	0.001	--	--
Total migration of aromatic primary amines	--	ND	0.01	Not Detected	PASS

Test Item(s)	CAS No.	Test Result(s) [mg/kg]	Detection Limit [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		002			
p-Phenylenediamine	106-50-3	ND	0.001	--	--
1,3-Phenylenediamine	108-45-2	ND	0.001	--	--
2,4-Diaminotoluene	95-80-7	ND	0.001	--	--
4,4'-oxydianiline	101-80-4	ND	0.001	--	--
benzidine	92-87-5	ND	0.001	--	--
4,4'-diaminodiphenylmethane	101-77-9	ND	0.001	--	--
Aniline	62-53-3	ND	0.001	--	--
o-anisidine	90-04-0	ND	0.001	--	--
o-toluidine	95-53-4	ND	0.001	--	--
4,4'-methylenedi-o-toluidine	838-88-0	ND	0.001	--	--
3,3'-dimethoxybenzidine	119-90-4	ND	0.001	--	--
3,3'-dimethylbenzidine	119-93-7	ND	0.001	--	--

2,6-dimethylaniline	87-62-7	ND	0.001	--	--
2,4'-methylenedianiline	1208-52-2	ND	0.001	--	--
4-methoxy-m-phenylenediamine	615-05-4	ND	0.001	--	--
p-cresidine	120-71-8	ND	0.001	--	--
2,4,5-trimethylaniline	137-17-7	ND	0.001	--	--
4,4'-thiodianiline	139-65-1	ND	0.001	--	--
4-chloroaniline	106-47-8	ND	0.001	--	--
2,4-dimethyl aniline	95-68-1	ND	0.001	--	--
2-naphthylamine	91-59-8	ND	0.001	--	--
2,2'-methylenedianiline	6582-52-1	ND	0.001	--	--
4-aminobiphenyl	92-67-1	ND	0.001	--	--
4-chloro-o-toluidine	95-69-2	ND	0.001	--	--
5-nitro-o-toluidine	99-55-8	ND	0.001	--	--
3,3'-dichlorobenzidine	91-94-1	ND	0.001	--	--
4-aminoazobenzene	60-09-3	ND	0.001	--	--
4,4'-methylene-bis- (2-chloro-aniline)	101-14-4	ND	0.001	--	--
o-aminoazotoluene	97-56-3	ND	0.001	--	--
Total migration of aromatic primary amines	--	ND	0.01	Not Detected	PASS

Test Item(s)	CAS No.	Test Result(s) [mg/kg]	Detection Limit [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		003			
p-Phenylenediamine	106-50-3	ND	0.001	--	--
1,3-Phenylenediamine	108-45-2	ND	0.001	--	--
2,4-Diaminotoluene	95-80-7	ND	0.001	--	--
4,4'-oxydianiline	101-80-4	ND	0.001	--	--
benzidine	92-87-5	ND	0.001	--	--
4,4'-diaminodiphenylmethane	101-77-9	ND	0.001	--	--
Aniline	62-53-3	ND	0.001	--	--
o-anisidine	90-04-0	ND	0.001	--	--

o-toluidine	95-53-4	ND	0.001	--	--
4,4'-methylenedi-o-toluidine	838-88-0	ND	0.001	--	--
3,3'-dimethoxybenzidine	119-90-4	ND	0.001	--	--
3,3'-dimethylbenzidine	119-93-7	ND	0.001	--	--
2,6-dimethylaniline	87-62-7	ND	0.001	--	--
2,4'-methylenedianiline	1208-52-2	ND	0.001	--	--
4-methoxy-m-phenylenediamine	615-05-4	ND	0.001	--	--
p-cresidine	120-71-8	ND	0.001	--	--
2,4,5-trimethylaniline	137-17-7	ND	0.001	--	--
4,4'-thiodianiline	139-65-1	ND	0.001	--	--
4-chloroaniline	106-47-8	ND	0.001	--	--
2,4-dimethyl aniline	95-68-1	ND	0.001	--	--
2-naphthylamine	91-59-8	ND	0.001	--	--
2,2'-methylenedianiline	6582-52-1	ND	0.001	--	--
4-aminobiphenyl	92-67-1	ND	0.001	--	--
4-chloro-o-toluidine	95-69-2	ND	0.001	--	--
5-nitro-o-toluidine	99-55-8	ND	0.001	--	--
3,3'-dichlorobenzidine	91-94-1	ND	0.001	--	--
4-aminoazobenzene	60-09-3	ND	0.001	--	--
4,4'-methylene-bis- (2-chloro-aniline)	101-14-4	ND	0.001	--	--
o-aminoazotoluene	97-56-3	ND	0.001	--	--
Total migration of aromatic primary amines	--	ND	0.01	Not Detected	PASS

Test Item(s)	CAS No.	Test Result(s) [mg/kg]	Detection Limit [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		004			
p-Phenylenediamine	106-50-3	ND	0.001	--	--
1,3-Phenylenediamine	108-45-2	ND	0.001	--	--
2,4-Diaminotoluene	95-80-7	ND	0.001	--	--
4,4'-oxydianiline	101-80-4	ND	0.001	--	--

benzidine	92-87-5	ND	0.001	--	--
4,4'-diaminodiphenylmethane	101-77-9	ND	0.001	--	--
Aniline	62-53-3	ND	0.001	--	--
o-anisidine	90-04-0	ND	0.001	--	--
o-toluidine	95-53-4	ND	0.001	--	--
4,4'-methylenedi-o-toluidine	838-88-0	ND	0.001	--	--
3,3'-dimethoxybenzidine	119-90-4	ND	0.001	--	--
3,3'-dimethylbenzidine	119-93-7	ND	0.001	--	--
2,6-dimethylaniline	87-62-7	ND	0.001	--	--
2,4'-methylenedianiline	1208-52-2	ND	0.001	--	--
4-methoxy-m-phenylenediamine	615-05-4	ND	0.001	--	--
p-cresidine	120-71-8	ND	0.001	--	--
2,4,5-trimethylaniline	137-17-7	ND	0.001	--	--
4,4'-thiodianiline	139-65-1	ND	0.001	--	--
4-chloroaniline	106-47-8	ND	0.001	--	--
2,4-dimethyl aniline	95-68-1	ND	0.001	--	--
2-naphthylamine	91-59-8	ND	0.001	--	--
2,2'-methylenedianiline	6582-52-1	ND	0.001	--	--
4-aminobiphenyl	92-67-1	ND	0.001	--	--
4-chloro-o-toluidine	95-69-2	ND	0.001	--	--
5-nitro-o-toluidine	99-55-8	ND	0.001	--	--
3,3'-dichlorobenzidine	91-94-1	ND	0.001	--	--
4-aminoazobenzene	60-09-3	ND	0.001	--	--
4,4'-methylene-bis- (2-chloro-aniline)	101-14-4	ND	0.001	--	--
o-aminoazotoluene	97-56-3	ND	0.001	--	--
Total migration of aromatic primary amines	--	ND	0.01	Not Detected	PASS

Test Item(s)	CAS No.	Test Result(s) [mg/kg]	Detection Limit [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		005			
p-Phenylenediamine	106-50-3	ND	0.001	--	--
1,3-Phenylenediamine	108-45-2	ND	0.001	--	--
2,4-Diaminotoluene	95-80-7	ND	0.001	--	--
4,4'-oxydianiline	101-80-4	ND	0.001	--	--
benzidine	92-87-5	ND	0.001	--	--
4,4'-diaminodiphenylmethane	101-77-9	ND	0.001	--	--
Aniline	62-53-3	ND	0.001	--	--
o-anisidine	90-04-0	ND	0.001	--	--
o-toluidine	95-53-4	ND	0.001	--	--
4,4'-methylenedi-o-toluidine	838-88-0	ND	0.001	--	--
3,3'-dimethoxybenzidine	119-90-4	ND	0.001	--	--
3,3'-dimethylbenzidine	119-93-7	ND	0.001	--	--
2,6-dimethylaniline	87-62-7	ND	0.001	--	--
2,4'-methylenedianiline	1208-52-2	ND	0.001	--	--
4-methoxy-m-phenylenediamine	615-05-4	ND	0.001	--	--
p-cresidine	120-71-8	ND	0.001	--	--
2,4,5-trimethylaniline	137-17-7	ND	0.001	--	--
4,4'-thiodianiline	139-65-1	ND	0.001	--	--
4-chloroaniline	106-47-8	ND	0.001	--	--
2,4-dimethyl aniline	95-68-1	ND	0.001	--	--
2-naphthylamine	91-59-8	ND	0.001	--	--
2,2'-methylenedianiline	6582-52-1	ND	0.001	--	--
4-aminobiphenyl	92-67-1	ND	0.001	--	--
4-chloro-o-toluidine	95-69-2	ND	0.001	--	--
5-nitro-o-toluidine	99-55-8	ND	0.001	--	--
3,3'-dichlorobenzidine	91-94-1	ND	0.001	--	--
4-aminoazobenzene	60-09-3	ND	0.001	--	--

4,4'-methylene-bis- (2-chloro-aniline)	101-14-4	ND	0.001	--	--
o-aminoazotoluene	97-56-3	ND	0.001	--	--
Total migration of aromatic primary amines	--	ND	0.01	Not Detected	PASS

Note: ND denotes Not Detected and less than Detection Limit

7. Specific migration of Formaldehyde

- Test method with reference to GB 31604.1-2023 National Food Safety Standard General principles on the determination of migration tests for food contact materials and articles; GB 5009.156-2016 National Food Safety Standard General principles on the pretreatment of migration tests for food contact materials and articles 10.3 Total immersion method; GB 31604.48-2016 National Food Safety Standard Food contact materials and articles Determination of Specific migration of formaldehyde
- Sample 002 migration ratio(S/V): 0.708dm²/770ml
- Sample 003 migration ratio(S/V): 0.317dm²/770ml

Test Item(s)	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		002		
Formaldehyde	4% Acetic acid; 70°C 2 hours +40°C 24 hours	2.1	15	PASS

Test Item(s)	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		003		
Formaldehyde	4% Acetic acid; 70°C 2 hours +40°C 24 hours	0.34	15	PASS

8. Specific migration of Hexamethylenediamine

- Test method with reference to GB 31604.1-2023 National Food Safety Standard General principles on the determination of migration tests for food contact materials and articles; GB 5009.156-2016 National Food Safety Standard General principles on the pretreatment of migration tests for food contact materials and articles 10.3 Total immersion method; GB 31604.43-2016 National Food Safety Standard Food contact materials and articles Determination of migration of ethylenediamine and hexamethylenediamine
- Sample 004 migration ratio(S/V): 0.195dm²/770ml

Test Item(s)	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		004		
Hexamethylenediamine	4% Acetic acid; 70°C 2 hours +40°C 24 hours	<1.0	2.4	PASS

9. Specific Migration of Terephthalic acid

- Test method: With reference to GB 31604.1-2023 Food safety national standard General principles on the determination of migration tests for food contact materials and articles; GB 5009.156-2016 Food safety national standard General principles on the pretreatment of migration tests for food contact materials and articles 10.2.1 Filling method General method; GB 31604.21-2016 National Food Safety Standard Food contact materials and articles Determination of specific migration of terephthalic acid
- Sample 005 migration ratio(S/V): 5.20dm²/770ml

Test Item(s)	Test Condition	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
		005		
Terephthalic acid	4% Acetic acid; 70°C 2 hours +40°C 24 hours	<1.0	7.5	PASS

10. Specific migration of metallic element

- Test method with reference to GB 5009.156-2016 National Food Safety Standard-General principles on the pretreatment of migration tests for food contact materials and articles 10.3 Total immersion method; GB 31604.49-2023 National Food Safety Standard-Food contact materials and articles Determination of Multi-elements and Migration of Multi-elements
- Sample 008 migration ratio(S/V): 0.0530dm²/770ml
- The sample was immersed 5g/L citric acid, 70°C 2 hours +40°C 24 hours. The heavy metal content of extracting solution was then analysed using by ICP-MS

Test Item(s)	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]	Comment
	008		
As	<0.0006	0.002	PASS
Cd	<0.0003	0.002	PASS
Pb	<0.001	0.01	PASS
Cr	<0.005	0.25	PASS
Ni	<0.005	0.14	PASS
Sb	<0.005	0.04	PASS
Al	<0.02	1	PASS
Co	<0.001	0.02	PASS
Cu	<0.005	4	PASS
Mn	<0.003	2.0	PASS
Mo	<0.005	0.12	PASS
Zn	<0.02	5	PASS
Sn	0.041	100	PASS

-END OF THE TEST REPORT-