FCM TEST REPORT

Applicant	Yuyao Langtao Electric Appliance Co., Ltd.
Address	No. 18 Miaohoutou Road, Fengyanghe Village, Lanjiang Street, Yuyao City, Zhejiang Province, Ningbo, Zhejiang, CN(China)
Manufacture	Yuyao Langtao Electric Appliance Co., Ltd.
Address	No. 18 Miaohoutou Road, Fengyanghe Village, Lanjiang Street, Yuyao City, Zhejiang Province, Ningbo, Zhejiang, CN(China)
Sample Name	Food Storage Box
Model	21034
Date of Receipt	May 30, 2025
Date of Test	May 30, 2025 to Jun. 04, 2025
Date of Report	Jun. 06, 2025
Test laboratory	Guangdong KAIXU Testing Technology Co., Ltd.
Test location	Room 215, Building 2, No. 123, Dongcheng Section, Guanlong Road, Dongcheng Street, Dongguan City, Guangdong Province, China

Test Conclusion:

Test Requested	Conclusion
As requested by the applicant, refer to attached page(s) for details.	See next page

****** FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S) ******

Signed for and on behalf of KAIXU Test International

Tested by: Cathy Approved by: Martin

Summary of Test Results:

Test Requested		Conclusion
In accordance with European Commission Directive 1935/2004/EC, Regulation (EU)10/2011 and its amendments Regulation (EU) 2024/3190 on plastic materials and articles intended to come into contact with food		
1.For Material: PP		
1.1	Sensory test-taste and odour to the integrate product	PASS
1.2	Overall migration	PASS
1.3	Migration of Heavy Metals	PASS
1.4	Migration of Primary Aromatic Amines test	PASS
1.5	Phthalate Test	PASS
1.6	Bisphenol A (BPA)content	PASS
1.7	Specific migration of Bisphenol A(BPA)	PASS
1.8	Polycyclic Aromatic Hydrocarbons(PAHs) content	PASS
1.9	Specific Migration of Polycyclic Aromatic Hydrocarbons (PAHs)	PASS
1.10	Visible Color Migration	PASS

Test Material Area and Simulant Liquid Volume

Material No.	Material Area	Simulant Volume
1	3dm^2	500ml

Test Result:

1.For Material: PP

1.1 Sensory test-taste and odour to the integrate product

Test Method: Sensorial examination odour and taste test with reference to DIN10955:2024-01;
Test condition: Odour test:40℃,2 hours;
Taste test: sunflower oil ,40℃,2 hours.

Test Item (s)	Test Result	Limit
	1	
Sensorial examination odour (Point scale)	0	2.5
Sensorial examination taste (Point scale)	0	2.5

Note： Odour/Taste Grade

0= No perceptible difference

1= Just perceivable difference(still difficult to define)

2= Slight difference

3= Marked difference

4= Strong difference

5. This part of the test is holistic test

1.2 Overall migration

Test Method: Regulation (EU) 2023/1442, With reference to EN 13130-1:2004, EN 1186-1:2002, EN 1186-2:2022, EN1186-3:2022

Stimulant used	Test condition	Test Result (mg/dm^2)			MDL (mg/dm^2)	Limit (mg/dm^2)
		1				
		1st	2nd	3rd		
3 % acetic acid	2 hour at 40℃	N.D.	N.D.	N.D.	2.0	10
10 % ethanol	2 hour at 40℃	N.D.	N.D.	N.D.	2.0	10
95% Ethanol	2 hour at 40℃	N.D.	N.D.	N.D.	2.0	10
Isooctane	2 hour at 40℃	N.D.	N.D.	N.D.	2.0	10

Note： 1. mg/dm^2=milligram per square decimeter

2. N.D.= Not Detected(<MDL)

3. MDL = Method Detection Limit

1.3 Migration of Heavy Metals

Test Method: Regulation (EU)10/2011 and its amendments Regulation (EU) 2024/3190, With reference to EN 13130-1:2004, analysis was performed by ICP-MS

Test Condition: 2 hours at 40℃ in 3% Acetic acid

Test Item(s)	Unit	Test Result			MDL	Limit
		1				
		1st	2nd	3rd		
Soluble Aluminium (Al)	mg/kg	N.D.	N.D.	N.D.	0.01	1
Soluble Ammonium	mg/kg	N.D.	N.D.	N.D.	0.01	--
Soluble Antimony(Sb)	mg/kg	N.D.	N.D.	N.D.	0.01	0.04
Soluble Arsenic(As)	mg/kg	N.D.	N.D.	N.D.	0.002	0.002
Soluble Barium(Ba)	mg/kg	N.D.	N.D.	N.D.	0.01	1
Soluble Cadmium(Cd)	mg/kg	N.D.	N.D.	N.D.	0.002	0.002
Soluble Calcium(Ca)	mg/kg	N.D.	N.D.	N.D.	0.01	--
Soluble Chromium(Cr)	mg/kg	N.D.	N.D.	N.D.	0.002	0.002
Soluble Cobalt(Co)	mg/kg	N.D.	N.D.	N.D.	0.01	0.05
Soluble Copper(Cu)	mg/kg	N.D.	N.D.	N.D.	0.01	5
Soluble Europium(Eu)	mg/kg	N.D.	N.D.	N.D.	0.01	0.05
Soluble Gadolinium(Gd)	mg/kg	N.D.	N.D.	N.D.	0.01	0.05
Soluble Iron(Fe)	mg/kg	N.D.	N.D.	N.D.	0.01	48
Soluble Lanthanum(La)	mg/kg	N.D.	N.D.	N.D.	0.01	0.05
Soluble Lead(Pb)	mg/kg	N.D.	N.D.	N.D.	0.002	0.002
Soluble Lithium(Li)	mg/kg	N.D.	N.D.	N.D.	0.01	0.6
Soluble Magnesium(Mg)	mg/kg	N.D.	N.D.	N.D.	0.01	--
Soluble Manganese(Mn)	mg/kg	N.D.	N.D.	N.D.	0.01	0.6
Soluble Mercury(Hg)	mg/kg	N.D.	N.D.	N.D.	0.002	0.002
Soluble Nickel(Ni)	mg/kg	N.D.	N.D.	N.D.	0.01	0.02
Soluble Potassium(K)	mg/kg	N.D.	N.D.	N.D.	0.01	--
Soluble Sodium(Na)	mg/kg	N.D.	N.D.	N.D.	0.01	--
Soluble Terbium(Tb)	mg/kg	N.D.	N.D.	N.D.	0.01	0.05
Soluble Zinc(Zn)	mg/kg	N.D.	N.D.	N.D.	0.01	5

Note：

1. mg/kg = ppm
2. N.D. = Not Detected (<MDL)
3. MDL = Method Detection Limit

1.4 Migration of Primary Aromatic Amines test

Test Method: Regulation (EU)10/2011 and its amendments Regulation (EU) 2024/3190, With reference to EN 13130-1:2004, analysis was performed by LC-MS/MS

Test Condition: 2 hour at 40℃ in 3% Acetic acid

No.	Name	CAS No.	Test Result(mg/kg)			MDL (mg/kg)	Limit (mg/kg)
			1				
			1st	2nd	3rd		
1	4-Aninobiphenyl	92-67-1	N.D.	N.D.	N.D.	0.002	0.002
2	4-Chloro-o-toluidine	95-69-2	N.D.	N.D.	N.D.	0.002	0.002
3	2-Naphthylamine	91-59-8	N.D.	N.D.	N.D.	0.002	0.002
4	o-Aminoazotoluene	97-56-3	N.D.	N.D.	N.D.	0.002	0.002
5	2-Amino-4-nitrotoluene	99-55-8	N.D.	N.D.	N.D.	0.002	0.002
6	p-Chloroaniline	106-47-8	N.D.	N.D.	N.D.	0.002	0.002
7	2,4-Diaminoanisole	615-05-4	N.D.	N.D.	N.D.	0.002	0.002
8	4,4'-Diaminobiphenylmethane	101-77-9	N.D.	N.D.	N.D.	0.002	0.002
9	3,3'-Dichlorobenzidine	91-94-1	N.D.	N.D.	N.D.	0.002	0.002
10	3,3'-Dmethoxybenzidine	119-90-4	N.D.	N.D.	N.D.	0.002	0.002
11	3,3'-Dimethylbenzidine	119-93-7	N.D.	N.D.	N.D.	0.002	0.002
12	3,3'-Dimethyl-4,4-diaminobiphenylmethane	838-88-0	N.D.	N.D.	N.D.	0.002	0.002
13	p-Cresidine	120-71-8	N.D.	N.D.	N.D.	0.002	0.002
14	4,4'-Methylene-bis-（2-chloroaniline）	101-214-4	N.D.	N.D.	N.D.	0.002	0.002
15	4,4'-Oxydianiline	101-80-4	N.D.	N.D.	N.D.	0.002	0.002
16	4,4'-Thiodianiline	139-65-1	N.D.	N.D.	N.D.	0.002	0.002
17	o-Toluidine	95-53-4	N.D.	N.D.	N.D.	0.002	0.002
18	2,4-Toluylendiamine	95-80-7	N.D.	N.D.	N.D.	0.002	0.002
19	2,4,5-Trimethylaniline	137-17-7	N.D.	N.D.	N.D.	0.002	0.002
20	o-Anisidine	90-04-0	N.D.	N.D.	N.D.	0.002	0.002
21	2,4-Xylidine	95-68-1	N.D.	N.D.	N.D.	0.002	0.002
22	2,6-Xylidine	87-62-7	N.D.	N.D.	N.D.	0.002	0.002
23	SUM	--	N.D.	N.D.	N.D.	--	0.01

Note：
1. mg/kg=ppm
2. N.D. = Not Detected (<MDL)
3. MDL = Method Detection Limit
4. Primary aromatic amines (“PAAs”) listed in entry 43 to Appendix 8 of Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council (*) and for which no migration limit is specified in Table 1 of Annex I shall not migrate or shall not otherwise be released from plastic materials and articles into food or food simulant. They shall not be detectable using analytical equipment with a limit of detection of 0.002 mg/kg food or food simulant applied to each individual primary aromatic amine (“PAA”), in accordance with Article 11(4). For PAAs not listed in entry 43 to Appendix 8 of Annex XVII to Regulation (EC) No 1907/2006, but for which no specific migration limit is specified in Annex I, compliance with Article 3 of Regulation (EC) No 1935/2004 shall be verified in accordance with Article 19. The sum of those PAAs shall however not exceed 0.01 mg/kg in food or food simulant.

1.5 Phthalate test

Test Method: Regulation (EU)10/2011 and its amendments Regulation (EU) 2024/3190, With reference to EN 13130-1:2004, EN 1186-1:2002, EN 1186-2:2022, EN1186-3:2022

Test Instrument: Gas Chromatography-Mass Spectrometer(GC-MS)

Total Phthalate

Test Item(s)	Unit	Test Result	MDL	Limit
		1		
Dibutyl Phthalate(DBP)	mg/kg	N.D.	30	500
Benzylbutyl Phthalate (BBP)	mg/kg	N.D.	30	1000
Di-(2-ethylhexyl) Phthalate(DEHP)	mg/kg	N.D.	30	1000
Diisononyl Phthalate(DINP)	mg/kg	N.D.	100	1000
Di-n-octyl Phthalate(DNOP)	mg/kg	N.D.	30	1000
Diisodecyl Phthalate (DIDP)	mg/kg	N.D.	100	1000

Phthalate Migration

Test Condition: 3% Acetic acid: 40℃, 2 h

Test Item(s)	Unit	Test Result			MDL	Limit
		1				
		1st	2nd	3rd		
Dibutyl Phthalate(DBP)	mg/kg	N.D.	N.D.	N.D.	0.05	0.12
Benzylbutyl Phthalate (BBP)	mg/kg	N.D.	N.D.	N.D.	0.2	6
Di-(2-ethylhexyl) Phthalate(DEHP)	mg/kg	N.D.	N.D.	N.D.	0.2	0.6
Diisononyl Phthalate(DINP)	mg/kg	N.D.	N.D.	N.D.	0.2	1.8
Di-n-octyl Phthalate(DNOP)	mg/kg	N.D.	N.D.	N.D.	0.2	5
Diisodecyl Phthalate (DIDP)	mg/kg	N.D.	N.D.	N.D.	0.2	9

Note：
1. mg/kg=ppm
2. N.D. = Not Detected (<MDL)
3. MDL = Method Detection Limit

1.6 Bisphenol A (BPA)content

Test Method: Regulation (EU)10/2011 and its amendments Regulation(EU) 2024/3190,
With reference to CEN/TS 13130-13:2005, analysis was perfommed byLC-MS/MS

Test Item	Unit	MDL	Limit	Test Result
				1
Bisphenol A (BPA)	mg/kg	0.01	0.05	N.D.

Note： 1. mg/kg=ppm
2. MDL=Method Detection Limit
3. N.D.=Not Detection(<MDL)

1.7 Specific migration of Bisphenol A(BPA)

Test Method: Regulation (EU)10/2011 and its amendments Regulation (EU) 2024/3190,
With reference to EN 13130-1:2004,EN 1186-1:2002,EN 1186-3:2022, EN1186-14:2002
Test Condition: 3% Acetic acid, 2 hours at 70℃

Test Item(s)	Unit	MDL	Limit	Test Result		
				1		
				1st	2nd	3rd
Bisphenol A(BPA)	mg/kg	0.01	0.05	N.D.	N.D.	N.D.

Note:
1.mg/kg=ppm
2.N.D.= Not Detected (<MDL)
3.MDL=Method Detection Limit
4.The requirement in accordance with the Commission Regulation (EU)2024/3190.

1.8 Polycyclic Aromatic Hydrocarbons(PAHs) content

Test Method: With reference to AfPS GS 2019:01 PAK

Test Instrument: Gas Chromatography-Mass Spectrometer (GC-MS)

Tested Item(s)	Test Result Unit (mg/kg)	Limit
	1	
Naphthalene	N.D	<1
Phenanthrene	N.D	<1 Sums
Pyrene	N.D	
Anthracene	N.D	
Fluoranthene	N.D	

Tested Item(s)	Test Result Unit (mg/kg)	Limit
	1	
Benzo[a]anthracene	N.D	<0.2
Chrysene	N.D	<0.2
Benzo[b]fluoranthene	N.D	<0.2
Benzo[k]fluoranthene	N.D	<0.2
Benzo[j]fluoranthene	N.D	<0.2
Benzo[a]pyrene	N.D	<0.2
Benzo[e]pyrene	N.D	<0.2
Indenol[1,2,3-cd]pyrene	N.D	<0.2
Dibenz[a,h]anthracene	N.D	<0.2
Benzo[g,h,i]perylene	N.D	<0.2
15 PAHs SUMs	N.D	<1
Conclusion	**PASS**	**---**

Note: - mg/kg = Milligram per kilogram
-N.D = not detected

1.9 Specific Migration of Polycyclic Aromatic Hydrocarbons (PAHs)

Test Method: With reference to EN 13130-1:2004

Test Instrument: Gas Chromatography-Mass Spectrometer (GC-MS)

Parameter	Unit	Test Result	Limit
		1	
		3% acetic acid, 40℃, 2h	
Benzo[a]pyrene (BaP)	mg/kg	<0.01	---
Benzo[e]pyrene	mg/kg	<0.01	---
Benzo[a]anthracene	mg/kg	<0.01	---
Benzo[b]fluoranthene	mg/kg	<0.01	---
Benzo[j]fluoranthene	mg/kg	<0.01	---
Benzo[k]fluoranthene	mg/kg	<0.01	---
Chrysene	mg/kg	<0.01	---
Dibenzo[a,h]anthracene	mg/kg	<0.01	---
Benzo[g,h,i]perylene	mg/kg	<0.01	---
Indeno[1,2,3-c,d]pyrene	mg/kg	<0.01	---

Naphthalene	mg/kg	<0.01	---
Anthracene	mg/kg	<0.01	---
Fluoranthene	mg/kg	<0.01	---
Phenanthrene	mg/kg	<0.01	---
Pyrene	mg/kg	<0.01	---
Sum of 15 PAHs	mg/kg	<0.01	N.D.(<0.01)
Conclusion	---	**PASS**	--

Note: - mg/kg = Milligram per kilogram
-N.D = not detected
-< = Less than

1.10 Visible Color Migration

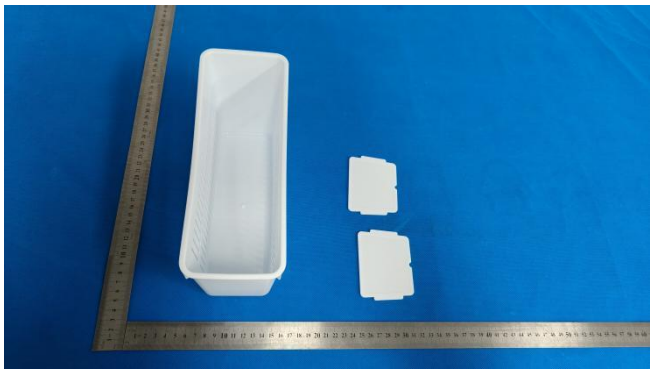
The simulated solution used	**Test condition**	**Maximum Limit**	**Test Result**
			1
3% acetic acid	2 hour at 40℃	No color migration	No color migration was observed
10 % ethanol	2 hour at 40℃	No color migration	No color migration was observed
95% Ethanol	2 hour at 40℃	No color migration	No color migration was observed
Isooctane	2 hour at 40℃	No color migration	No color migration was observed
Conclusion	**--**	**--**	**PASS**

Note: -N.D. =Not Detected
- mg/kg = Milligram per kilogram
- % = Percentage by weight
- ℃ = Centigrade
- h = hour
- <=less than

Sample Description:

Material No.	Description	Material
1	White plastic box	PP

Tested sample photos



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