

Test Report

Number: GZHH00531330

Applicant: FLASHBAY ELECTRONICS
BUILDING2, JIXUN INDUSTRIAL PARK, XINJIAO,
DONG'AO VILLAGE, SHATIAN TOWN, HUIYANG
DISTRICT, HUIZHOU CITY, GUANGDONG PROVINCE,
P.R.CHINA

Date: Apr 02, 2024

Sample Description:

Thirteen (13) pieces of submitted sample said to be :
Item Name : **Travel Cups**
Item No. : **Aroma (AM)**
Country of Origin : China
Date Sample Received : Mar 21, 2024
Testing Period : Mar 21, 2024 ~ Apr 02, 2024

Tested Sample



Tests conducted:

As requested by the applicant, refer to attached page(s) for details.


To be continued



Conclusion:

<u>Tested sample</u>	<u>Standard</u>	<u>Result</u>
Tested component(s) of submitted sample(s)	European Commission Regulation No. 10/2011 and Amendment No. 2016/1416 and No 2017/752 and No. 2020/1245 and Regulation 1935/2004 on overall migration	Pass
	European Commission Regulation No. 10/2011 Annex II and Amendment No. 2016/1416 and No. 2017/752 and No. 2020/1245 and Regulation 1935/2004 on specific migration of heavy metal content	Pass
	European Commission Regulation No. 10/2011 Annex I and II and Amendments No. 2020/1245 and Regulation 1935/2004 on specific migration of Primary Aromatic Amines	Pass
	Italian Ministerial Decree 21/3/1973 Title II, Heading I - articles made of plastic on dye migration	Pass
	Italian Ministerial Decree 21/3/1973 Title II, Heading I - articles made of plastic on global migration	Pass
	Italian Ministerial Decree 21/3/1973 Art.5 - articles made of stainless steel on global migration	Pass
	Italian Decree of the Ministry of Health August 6, 2015, n.195 - articles made of stainless steel on specific migration	Pass
	European Commission Regulation No. 10/2011 Annex I and Regulation(EC) 1935/2004 on Phthalate content	Pass
	European Commission Regulation No. 10/2011 Annex I and its amendment No. 2020/1245 and No. 2023/1442 and Regulation 1935/2004 on specific migration of Phthalate content	Pass
	European Commission Regulation No. 10/2011 Annex I and its amendment No. 2018/213 and No. 2020/1245 and Regulation 1935/2004 on specific migration of Bisphenol A	Pass

Authorized by:
For Intertek Testing Services Shenzhen Ltd.
Guangzhou Branch, Hardlines


Victor T.J. Wang
Assistant General Manager



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Tests Conducted

1 Overall Migration Test

With reference to Commission Regulation (EU) No. 10/2011 and its amendments.

I. Test condition:

Tested component	Food simulant	Time(hour)	Temperature(°C)
(1), (4)	10% (v/v) Ethanol	2	100
	3% (w/v) Acetic acid	2	100
	95%(v/v) Ethanol	4	60
	Iso -octane	2	60

II. Test Results :

Tested component(1):

Food Simulant	Result(mg/dm ²)			Reporting Limit (mg/dm ²)	Limit (mg/dm ²)
	1 st migration	2 nd migration	3 rd migration		
10% (v/v) Ethanol	ND	ND	ND	3	10
3% (w/v) Acetic acid	ND	ND	ND	3	10
95%(v/v) Ethanol	ND	ND	ND	3	10
Iso -octane	ND	ND	ND	3	10

Tested component(4):

Food Simulant	Result(mg/dm ²)			Reporting Limit (mg/dm ²)	Limit (mg/dm ²)
	1 st migration	2 nd migration	3 rd migration		
10% (v/v) Ethanol	ND	ND	ND	3	10
3% (w/v) Acetic acid	ND	ND	ND	3	10
95%(v/v) Ethanol	ND	ND	ND	3	10
Iso -octane	6	ND	ND	3	10

ND = Not detected(less than reporting limit)

Ratio of food contact surface area to volume used to establish the compliance of material or article:

Component (1) = 1dm² : 337mL

Component (4) = 1dm² : 35000mL

Verification of compliance with the limit was based on the result obtained from 3rd migration and results of 3rd migration < 2nd migration < 1st migration.

Tested component(s) : See component list in last section of this report.



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2 Specific Migration of Heavy Metal Content

With reference to Commission Regulation (EU) No. 10/2011 and its amendments

I. Test condition:

Food simulant : 3% (w/v) Acetic acid
Temperature : 40°C

Time : 24 hours

II. Test result :

Tested component(1), (4):

Element	Result (mg/kg)			Reporting limit (mg/kg)	Limit (mg/kg)
	1 st migration	2 nd migration	3 rd migration		
Aluminum(Al)	ND	ND	ND	0.1	1
Antimony(Sb)	ND	ND	ND	0.01	0.04
Arsenic(As)	ND	ND	ND	0.01	ND
Barium(Ba)	ND	ND	ND	0.1	1
Cadmium(Cd)	ND	ND	ND	0.002	ND
Chromium(Cr)	ND	ND	ND	0.01	ND
Cobalt(Co)	ND	ND	ND	0.03	0.05
Copper(Cu)	ND	ND	ND	1	5
Iron(Fe)	ND	ND	ND	5	48
Lead(Pb)	ND	ND	ND	0.01	ND
Lithium(Li)	ND	ND	ND	0.1	0.6
Manganese(Mn)	ND	ND	ND	0.1	0.6
Mercury(Hg)	ND	ND	ND	0.01	ND
Nickel(Ni)	ND	ND	ND	0.01	0.02
Zinc(Zn)	ND	ND	ND	1	5
Europium(Eu)	ND	ND	ND	0.01	0.05
Gadolinium(Gd)	ND	ND	ND	0.01	0.05
Lanthanum(La)	ND	ND	ND	0.01	0.05
Terbium(Tb)	ND	ND	ND	0.01	0.05
Sum of (Eu, Gd, La, Tb)	ND	ND	ND	0.04	0.05

ND = Not detected(less than reporting limit)

Tested component(s) : See component list in last section of this report.



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3 Specific Migration of Primary Aromatic Amines

with reference to Commission Regulation (EU) No. 10/2011 and its amendments and JRC Technical Guidelines EUR 24815 EN 2011.

I. Test condition:

Tested component	Food simulant	Time(hour)	Temperature (°C)
(1), (4)	3% (w/v) Acetic acid	24	40

II. Test Result:

Tested component (1), (4):

Test Item	CAS No.	Result (mg/kg)			Reporting Limit (mg/kg)	Limit (mg/kg)
		1 st migration	2 nd migration	3 rd migration		
1	4-Aminodiphenyl	92-67-1	ND	ND	0.002	ND
2	Benzidine	92-87-5	ND	ND	0.002	ND
3	4-Chloro-o-Toluidine	95-69-2	ND	ND	0.002	ND
4	2-Naphthylamine	91-59-8	ND	ND	0.002	ND
5	o-Aminoazotoluene	97-56-3	ND	ND	0.002	ND
6	2-Amino-4-Nitrotoluene	99-55-8	ND	ND	0.002	ND
7	p-Chloroaniline	106-47-8	ND	ND	0.002	ND
8	2,4-Diaminoanisole	615-05-4	ND	ND	0.002	ND
9	4,4'-Diaminodiphenylmethane	101-77-9	ND	ND	0.002	ND
10	3,3'-Dichlorobenzidine	91-94-1	ND	ND	0.002	ND
11	3,3'-Dimethoxybenzidine	119-90-4	ND	ND	0.002	ND
12	3,3'-Dimethylbenzidine	119-93-7	ND	ND	0.002	ND
13	3,3'-Dimethyl-4,4'diaminodiphenylmethane	838-88-0	ND	ND	0.002	ND
14	p-Cresidine	120-71-8	ND	ND	0.002	ND
15	4,4'-Methylene-Bis(2-Chloroaniline)	101-14-4	ND	ND	0.002	ND
16	4,4'-Oxydianiline	101-80-4	ND	ND	0.002	ND
17	4,4'-Thiodianiline	139-65-1	ND	ND	0.002	ND
18	o-Toluidine	95-53-4	ND	ND	0.002	ND
19	2,4-Toluylenediamine	95-80-7	ND	ND	0.002	ND
20	2,4,5-Trimethylaniline	137-17-7	ND	ND	0.002	ND
21	o-Anisidine	90-04-0	ND	ND	0.002	ND
22	4-Aminoazobenzene	60-09-3	ND	ND	0.002	ND
23	m-Phenylenediamine	108-45-2	ND	ND	0.002	ND
24	Benzoguanamin	91-76-9	ND	ND	0.05	5
25	4,4'-Methylenebis(3-chloro-2,6-diethylaniline)	106246-33-7	ND	ND	0.01	0.05
26	Total of other primary aromatic amine	-	ND	ND	0.01	0.01

ND = Not detected(less than reporting limit)



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Other primary aromatic amines are p-Phenyldiamine, Aniline, 2,4-Xylidine, 2,6-Xylidine, 3-Methoxyaniline, 2,6-Toluene-diamine, 1,5-Diaminonaphthalene, 4-Ethoxyaniline, 3-Amino-4-methoxybenzanilide, 3-Amino-4-methylbenzamide, 2-Amino-5-methylbenzoic acid

Tested component(s) : See component list in last section of the report.

4 Detection of Dye Migration

As per Italian Ministerial Decree 21/3/1973, Title II Heading I – Articles Made of Plastic, migration test on the submitted sample was carried out at specified time and temperature and the test solutions were then measured for transmittance between 400nm and 750nm using UV/Vis Spectrophotometer.

- I. Food simulants :
- (B) 3% (w/v) acetic acid.
 - (C) 10% (v/v) ethanol.
 - (D) Sunflower oil.

II. Test condition :

Food Simulant	Temperature	Time
(B)	40°C	24 hours
(C)	40°C	24 hours
(D)	40°C	24 hours

III. Dye migration :

Tested component	Food Simulant	Result (Transmittance, %)	Limit (Transmittance, %)
(1), (2), (4)	(B)	>95	≥ 95
	(C)	>95	
	(D)	>95	

> = More than

≥ = More than or equal to

Tested component(s) : See component list in last section of the report.



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5 Global Migration Test

As per Italian Ministerial Decree 21/3/1973, Section 1, Annex IV.

I. Test condition :

Tested component	Food simulant	Time(hour)	Temperature(°C)
(2)	10% (v/v) Ethanol	2	100
	3% (w/v) Acetic acid	2	100
	95%(v/v) Ethanol	4	60
	Iso -octane	2	60

II. Test result :

Food Simulant	Result(mg/kg)	Reporting Limit (mg/kg)	Limit (mg/kg)
	Tested component		
	(2)		
10% (v/v) Ethanol	ND	1	50
3% (w/v) Acetic acid	ND	1	50
95%(v/v) Ethanol	15	1	50
Iso -octane	20	1	50

ND = Not detected (less than reporting limit)

The limit of 50mg/kg was quoted for samples that are lids, seals, stoppers and other similar closing devices.

Tested component(s) : See component list in last section of this report.

6 Global Migration Test

As per Italian Ministerial Decree 21/3/1973 and Decree of the Ministry of Health August 6, 2015, n. 195.

I. Test condition :

Temperature : 70°C Time : 30 minutes

II. Test result :

Food Simulant	Result(mg/dm ²)	Reporting limit (mg/dm ²)	Limit (mg/dm ²)
	(3)		
3% (w/v) Acetic Acid in aqueous solution	ND	1	8

ND = Not detected(less than reporting limit)

Tested components : See component list in the last section of this report



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Tests Conducted

7 Specific Migration Test

As per Italian Decree of the Ministry of Health August 6, 2015, n.195, the specific migration of stainless steel was carried out at specified time and temperature and the metal content was determined by Inductively Coupled Plasma Spectrometry

I. Test condition :

Temperature: 70°C Time : 30 minutes

II. Food simulant

3% (w/v) acetic acid in aqueous solution

III. Test result :

Element	Result(ppm)	Reporting limit (ppm)	Limit (ppm)
	(3)		
Chromium(trivalent)	ND	0.05	0.1
Nickel	ND	0.05	0.1
Manganese	ND	0.05	0.1

ND = Not detected(less than reporting limit)

Tested components : See component list in the last section of this report

8 Phthalate Content

With reference to ISO 8124-6:2018, and phthalate content was determined by Gas Chromatographic-Mass Spectrometric (GC-MS).

Phthalate	CAS No.	Result (%)	Reporting Limit (%)	Limit (%)
		Tested component		
		(4)		
Dibutyl phthalate (DBP)	84-74-2	ND	0.005	0.05
Di-(2-ethyl hexyl) phthalate (DEHP)	117-81-7	ND	0.005	0.1
Benzyl butyl phthalate (BBP)	85-68-7	ND	0.005	0.1
Di-isononyl phthalate (DINP)	28553-12-0	ND	0.005	0.1
Di-isodecyl phthalate (DIDP)	26761-40-0	ND	0.005	0.1

ND = Not detected (less than reporting limit)

Tested component(s) : See component list in last section of the report



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Tests Conducted

9 Specific Migration of Phthalate Content Test

As per Commission Regulation (EU) No.10/2011 and its amendments.

I. Test condition:

Tested component	Food simulant	Time(hour)	Temperature(°C)
(4)	95%(v/v) Ethanol	24	40

II. Test result :

Food simulant : 95% Ethanol:

Tested component (4)						
Phthalate	Cas No.	Result(mg/kg)			Reporting	Limit
		1 st migration	2 nd migration	3 rd migration	Limit (mg/kg)	(mg/kg)
Butyl benzy phthalate (BBP)	85-68-7	ND	ND	ND	1	6
Bis (2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	0.5	0.6
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	0.1	0.12
Di-(iso-nonyl) Phthalate (DINP)	28553-12-0	ND	ND	ND	1	1.8
Di-(iso-decyl) phthalate (DIDP)	/26761-40-0	ND	ND	ND	1	1.8
Diallyl phthalate (DAP)	131-17-9	ND	ND	ND	0.01	ND
Diisobutyl phthalate (DIBP)	84-69-5	ND	ND	ND	0.01	--
Sum of phthalate ^	--	ND	ND	ND	0.1	0.6

ND = Not detected(less than reporting limit)

^= Sum of phthalic acid dibutyl ester (DBP), diisobutyl phthalate (DIBP), phthalic acid, benzyl butyl ester (BBP) and phthalic acid, bis(2-ethylhexyl) ester (DEHP) expressed as DEHP equivalents using the following equation: $DBP*5 + DIBP*4 + BBP*0,1 + DEHP*1$

Verification of compliance with the limit was based on the result obtained from 3rd migration and results of 3rd migration < 2nd migration < 1st migration.

Verification of compliance with the limit was based on the result obtained from 1st migration when limit is ND and results of 3rd migration < 2nd migration < 1st migration.

Tested component(s) : See tested component list in last section of this report



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Tests Conducted

10 Specific Migration of Bisphenol A Test for Plastic Food Contacting Materials/Articles

With reference to Commission Regulation (EU) No. 10/2011 and DD CEN/TS 13130-13:2005.

I. Test condition:

Tested component	Food simulant	Time(hour)	Temperature(°C)
(4)	3% (w/v) Acetic acid	24	40

II. Test result:

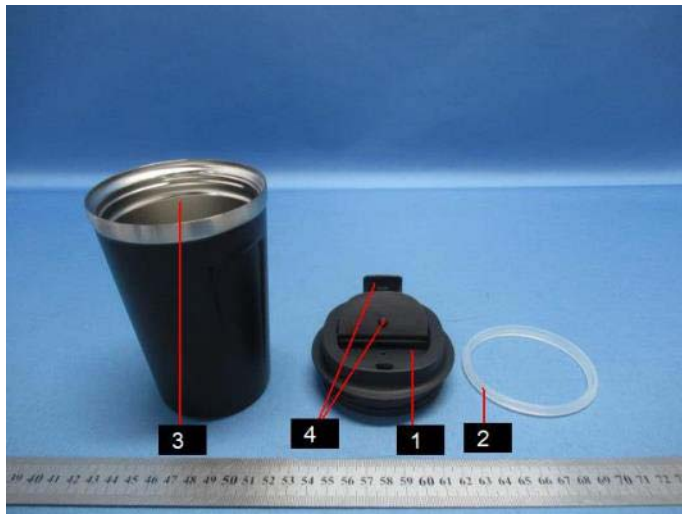
Tested Component (4)					
Food simulant	Result(mg/kg)			Report Limit (mg/kg)	Limit (mg/kg)
	1 st migration	2 nd migration	3 rd migration		
3% (w/v) Acetic acid	ND	ND	ND	0.01	0.05

ND = Not detected(less than reporting limit)

Tested component(s) : See component list in last section of the report

Component list:

- (1) Black PP plastic (lid).
- (2) Semi-transparent white silicone (seal ring).
- (3) Silver color 304 stainless steel (inner body).
- (4) Black unvulcanized TPR plastic (sealing stopper of lid).



Tests Conducted



Remark: The products in the reference photos are not tested in this report. It's declared by the applicant that the materials of those items are identical to the particular tested sample. They are just included in the report for reference.

End of report

The statements of conformity reported have considered the decision rule agreed, namely that Intertek have taken account of measurement uncertainty as calculated by Intertek, and applied according to ILAC-G8/09:2019 (Non-binary acceptance based on guard band $w = U$) except designation from the customer, regulation or test specification. This decision rule only applies to the numeric test results.

The sample(s) and sample information hereto are provided by the client who shall be solely responsible for the authenticity and integrity thereof. The results shown in this report relate only to the sample(s) tested. It is not intended to be a recommendation for any particular course of action. Intertek does not accept a duty of care or any other responsibility to any person other than the Client in respect of this report and only accepts liability to the Client insofar as is expressly contained in the terms and conditions governing Intertek's provision of services to you. Intertek makes no warranties or representations either express or implied with respect to this report save as provided for in those terms and conditions. We have aimed to conduct the Review on a diligent and careful basis and we do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise, except in the event of our gross negligence or wilful misconduct. This report shall not be reproduced unless with prior written approval from Intertek Testing Services Shenzhen Limited, Guangzhou Branch. The testing data and result issued by this report are just for scientific research, teaching, internal quality control, product research and development etc. on reference only in the territory of the People's Republic of China.

