

Test Report

Number: GZHH00596029

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

Date: Jun 11, 2025

Sample Description:

One (1) style of submitted sample said to be :
Item Name : **Travel Cups**
Item No. : **PolarBear (PB)**
Country of Origin : China
Date Sample Received : May 27, 2025 & May 30, 2025
Testing Period : May 27, 2025 ~ Jun 11, 2025

Tested sample



Tests conducted:

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

To be continued



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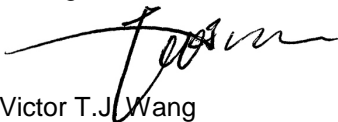
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Conclusion:

<u>Tested sample</u>	<u>Standard/Testing Item</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
	Council Europe Resolution AP (2004) 5 on Silicones Used for Food Contact Applications on Overall Migration	Pass
	EDQM Technical Guide on Metals and Alloys Used in Food Contact Materials and Articles, 2024, 2 nd Edition on specific migration of heavy metal	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

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


Victor T.J. Wang
General Manager



Should you have any query on this report, please click the link below:
https://verifyindex.intertek.com.cn/home/index?id=hl_report_verify



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- 1 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

Test method : With reference to Commission Regulation (EU) No. 10/2011 and its amendments , and EN 1186-3:2022 overall migration in evaporable simulants / EN 1186-2 : 2022 overall migration in vegetable oils.

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), (4):

Food Simulant	Result(mg/dm ²)			Detection 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

ND = Not detected (less than detection limit)

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

Component (1) = 1 dm² : 1071 mL

Component (4) = 1 dm² : 677 mL

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

The limit of 60mg/kg was quoted for samples intended for infants and young children.

One migration was conducted per client's request, however, the result met the migration limit.

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



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2 Overall Migration Test for Silicones

As per Council Europe Resolution AP (2004) 5 on silicones used for food contact applications, selection of test condition & food simulants by Commission Regulation (EU) No. 10/2011 and its amendments.

I. Test condition:

Aqueous food simulant:

Test no.	Time and temperature
OM5	2 hours at 100 °C

Fatty food simulant:

Test no.	Time and temperature
OM5	1 hour at 121 °C

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 results

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

ND = Not detected (less than detection limit)

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



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3 EDQM Technical Guide on Metals and Alloys Used in Food Contact Materials and Articles, 2024, 2nd Edition on Specific Migration of Heavy Metal

Test method: With reference to EDQM Technical Guide on Metals and Alloys Used in Food Contact Materials and Articles, 2024, 2nd Edition. Migration test was carried out and heavy metal content was determined by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES) and Inductively Coupled Plasma Mass Spectrometer (ICP-MS).

I. Test Condition:
Temperature: 40 °C Time: 24 hours

II. Test Result:
Food simulant: Citric acid 0.5%(m/v)

Articles for repeated use:

Tested component (3) :

Elements	Result 1 st test (mg/kg)	Result 2 nd test (mg/kg)	Result 1 st test+Result 2 nd test (mg/kg)	Result 3 rd test (mg/kg)	Detection Limit (mg/kg)	7*Limit (mg/kg)	Limit (mg/kg)
Silver (Ag)	ND	ND	ND	ND	0.05	0.56	0.08
Aluminium (Al)	ND	ND	ND	ND	1	35	5
Chromium (III) (Cr)	ND	ND	ND	ND	0.02	7	1
Cobalt (Co)	ND	ND	ND	ND	0.01	0.14	0.02
Copper (Cu)	ND	ND	ND	ND	0.5	28	4
Iron (Fe)	ND	ND	ND	ND	1	280	40
Manganese (Mn)	ND	ND	ND	ND	0.1	3.85	0.55
Molybdenum(Mo)	ND	ND	ND	ND	0.02	0.84	0.12
Nickel (Ni)	ND	ND	ND	ND	0.1	0.98	0.14
Tin (Sn)	ND	ND	ND	ND	10	700	100
Vanadium (V)	ND	ND	ND	ND	0.005	0.07	0.01
Zinc (Zn)	ND	ND	ND	ND	1	35	5
Antimony (Sb)	ND	ND	ND	ND	0.01	0.28	0.04
Arsenic (As)	ND	ND	ND	ND	0.001	0.014	0.002
Barium (Ba)	ND	ND	ND	ND	0.1	8.4	1.2
Beryllium (Be)	ND	ND	ND	ND	0.01	0.07	0.01
Cadmium (Cd)	ND	ND	ND	ND	0.001	0.035	0.005
Lead (Pb)	ND	ND	ND	ND	0.005	0.070	0.010
Lithium (Li)	ND	ND	ND	ND	0.010	0.336	0.048
Mercury (Hg)	ND	ND	ND	ND	0.003	0.021	0.003
Thallium (Tl)	ND	ND	ND	ND	0.001	0.007	0.001
Zirconium (Zr)	ND	ND	ND	ND	0.1	14	2
Magnesium(Mg)	ND	ND	ND	ND	1	-	-
Titanium(Ti)	ND	ND	ND	ND	1	-	-



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ND = Not detected (less than detection limit)

Remark : The submitted sample is a repeated use article. The migration test was carried out three times on the same article. The sum of the results of the first and second tests should not exceed seven times the limit (Result 1st test + Result 2nd test < 7 * limit) and the Result 3rd test shouldn't exceed the limit.

Ratio of food contact surface area to volume of component (3) used to establish the compliance of material or article = 1 dm² : 154 mL.

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

4 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

Test method : 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)			Detection 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



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ND = Not detected (less than detection limit)

Ratio of food contact surface area to volume:

Tested component	Ratio
(1)	0.93 dm ² /kg
(4)	1.48 dm ² /kg

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

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

5 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

Test method : 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)			Detection Limit (mg/kg)	Limit (mg/kg)
		1 st migration	2 nd migration	3 rd migration		
1 4-Aminodiphenyl	92-67-1	ND	ND	ND	0.002	ND
2 Benzidine	92-87-5	ND	ND	ND	0.002	ND
3 4-Chloro-o-Toluidine	95-69-2	ND	ND	ND	0.002	ND
4 2-Naphthylamine	91-59-8	ND	ND	ND	0.002	ND
5 o-Aminoazotoluene	97-56-3	ND	ND	ND	0.002	ND
6 2-Amino-4-Nitrotoluene	99-55-8	ND	ND	ND	0.002	ND
7 p-Chloroaniline	106-47-8	ND	ND	ND	0.002	ND
8 2,4-Diaminoaniso	615-05-4	ND	ND	ND	0.002	ND
9 4,4'-Diaminodiphenylmethane	101-77-9	ND	ND	ND	0.002	ND
10 3,3'-Dichlorobenzidine	91-94-1	ND	ND	ND	0.002	ND
11 3,3'-Dimethoxybenzidine	119-90-4	ND	ND	ND	0.002	ND
12 3,3'-Dimethylbenzidine	119-93-7	ND	ND	ND	0.002	ND



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Test Item	CAS No.	Result (mg/kg)			Detection Limit (mg/kg)	Limit (mg/kg)
		1 st migration	2 nd migration	3 rd migration		
13 3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	ND	ND	ND	0.002	ND
14 p-Cresidine	120-71-8	ND	ND	ND	0.002	ND
15 4,4'-Methylene-Bis(2-Chloroaniline)	101-14-4	ND	ND	ND	0.002	ND
16 4,4'-Oxydianiline	101-80-4	ND	ND	ND	0.002	ND
17 4,4'-Thiodianiline	139-65-1	ND	ND	ND	0.002	ND
18 o-Toluidine	95-53-4	ND	ND	ND	0.002	ND
19 2,4-Toluylenediamine	95-80-7	ND	ND	ND	0.002	ND
20 2,4,5-Trimethylaniline	137-17-7	ND	ND	ND	0.002	ND
21 o-Anisidine	90-04-0	ND	ND	ND	0.002	ND
22 4-Aminoazobenzene	60-09-3	ND	ND	ND	0.002	ND
23 m-Phenylenediamine	108-45-2	ND	ND	ND	0.002	ND
24 Benzoguanamin	91-76-9	ND	ND	ND	0.05	5
25 4,4'-Methylenebis(3-chloro-2,6-diethylaniline)	106246-33-7	ND	ND	ND	0.01	0.05
26 Total of other primary aromatic amine	-	ND	ND	ND	0.01	0.01

ND = Not detected (less than detection limit)

Other primary aromatic amines are p-Phenylenediamine, Aniline, 2,4-Xyldine, 2,6-Xyldine, 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.

Component list:

- (1) Black PP plastic (lid, nozzle).
- (2) Semi-transparent white silicone (sealing ring, sealing stopper).
- (3) Silver color stainless steel (inner body).
- (4) Semi-transparent white PE plastic (straw).



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Reference photo



Remark: The products in the reference photo are not tested in this report. It's declared by the applicant that they are the same series of products with the particular tested sample, 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.

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