

Test Report

Number: GZHH00491214

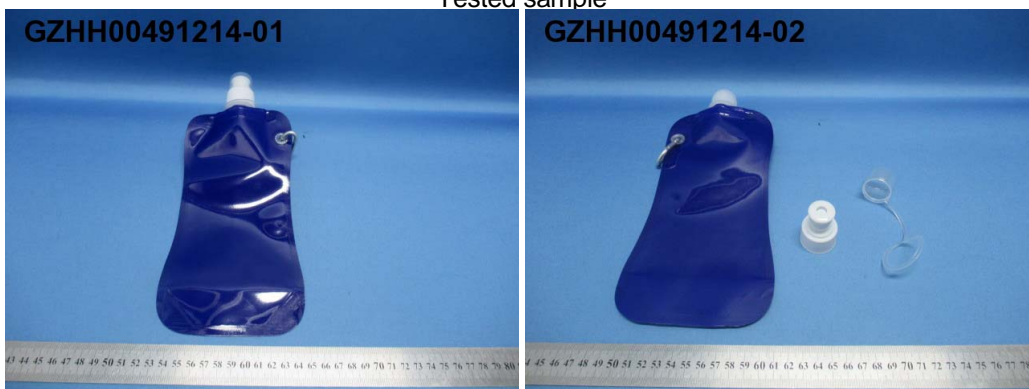
Applicant: FLASHBAY ELECTRONICS
BUILDING2, JIXUN INDUSTRIAL PARK, XINJIAO,
DONG'AO VILLAGE, SHATIAN TOWN, HUIYANG
DISTRICT, HUIZHOU CITY, GUANGDONG PROVINCE,
P.R.CHINA

Date: Jun 14, 2023

Sample Description:

Six (6) pieces of submitted sample said to be :
Item Name : **Water Bottle**
Item No. : **Marathon/MN**
Country of Origin : **China**
Date Sample Received : **Apr 28, 2023**
Testing Period : **Apr 28, 2023 ~ Jun 13, 2023**

Tested sample



Tests conducted:

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

To be continued



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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 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
	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

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 Specific Migration of Heavy Metals Content (EU Commission Regulation (EU) No 10/2011)

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

Test condition:

Food simulant : 3% (w/v) Acetic acid

Temperature : 40 °C

Time : 24 hours

(1) Transparent PE plastic film (inner bag).

Element	Result				
	1 st migration mg/kg	2 nd migration mg/kg	3 rd migration mg/kg	Reporting Limit mg/kg	Limit mg/kg
Aluminium (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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(2) Semi-transparent white PE plastic (stopper of bag).

Element	Result				
	1 st migration mg/kg	2 nd migration mg/kg	3 rd migration mg/kg	Reporting Limit mg/kg	Limit mg/kg
Aluminium (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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Tests Conducted

(3) White PE plastic (nozzle).

Element	Result				
	1 st migration mg/kg	2 nd migration mg/kg	3 rd migration mg/kg	Reporting Limit mg/kg	Limit mg/kg
Aluminium (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

Compliance: 3rd migration result < limit (if limit is ND, 1st migration result < limit)
 3rd migration result ≤ 2nd migration result ≤ 1st migration result

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

2 Specific Migration of Primary Aromatic Amines (EU Commission Regulation (EU) No 10/2011)

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

Test condition:

Tested component	Food simulant	Time(hour)	Temperature(°C)
(2) (3)	3% (w/v) Acetic acid	24	40



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Tests Conducted

(2) Semi-transparent white PE plastic (stopper of bag).

Test Item	Result				
	1 st migration mg/kg	2 nd migration mg/kg	3 rd migration mg/kg	Reporting Limit mg/kg	Limit mg/kg
4-Aminodiphenyl	ND	ND	ND	0.002	ND
Benzidine	ND	ND	ND	0.002	ND
4-Chloro-o-toluidine	ND	ND	ND	0.002	ND
2-Naphthylamine	ND	ND	ND	0.002	ND
o-Aminoazotoluene	ND	ND	ND	0.002	ND
2-Amino-4-Nitrotoluene	ND	ND	ND	0.002	ND
p-Chloroaniline	ND	ND	ND	0.002	ND
2,4-Diaminoanisole	ND	ND	ND	0.002	ND
4,4'-Diaminodiphenylmethane	ND	ND	ND	0.002	ND
3,3'-Dichlorobenzidine	ND	ND	ND	0.002	ND
3,3'-Dimethoxybenzidine	ND	ND	ND	0.002	ND
3,3'-Dimethylbenzidine	ND	ND	ND	0.002	ND
3,3'-Dimethyl-4,4'-diaminodiphenylmethane	ND	ND	ND	0.002	ND
p-Cresidine	ND	ND	ND	0.002	ND
4,4'-Methylene-bis-(2-chloroaniline)	ND	ND	ND	0.002	ND
4,4'-Oxydianiline	ND	ND	ND	0.002	ND
4,4'-Thiodianiline	ND	ND	ND	0.002	ND
o-Toluidine	ND	ND	ND	0.002	ND
2,4-Toluylenediamine	ND	ND	ND	0.002	ND
2,4,5-Trimethylaniline	ND	ND	ND	0.002	ND
o-Anisidine	ND	ND	ND	0.002	ND
4-Aminoazobenzene	ND	ND	ND	0.002	ND
m-Phenylenediamine	ND	ND	ND	0.002	ND
Benzoguanamin	ND	ND	ND	0.05	5
4,4-Methylene-bis-3(chloro-2,6-diethylaniline)	ND	ND	ND	0.01	0.05
Total of other primary aromatic amine	ND	ND	ND	0.01	0.01



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(3) White PE plastic (nozzle).

Test Item	Result				
	1 st migration mg/kg	2 nd migration mg/kg	3 rd migration mg/kg	Reporting Limit mg/kg	Limit mg/kg
4-Aminodiphenyl	ND	ND	ND	0.002	ND
Benzidine	ND	ND	ND	0.002	ND
4-Chloro-o-toluidine	ND	ND	ND	0.002	ND
2-Naphthylamine	ND	ND	ND	0.002	ND
o-Aminoazotoluene	ND	ND	ND	0.002	ND
2-Amino-4-Nitrotoluene	ND	ND	ND	0.002	ND
p-Chloroaniline	ND	ND	ND	0.002	ND
2,4-Diaminoanisole	ND	ND	ND	0.002	ND
4,4'-Diaminodiphenylmethane	ND	ND	ND	0.002	ND
3,3'-Dichlorobenzidine	ND	ND	ND	0.002	ND
3,3'-Dimethoxybenzidine	ND	ND	ND	0.002	ND
3,3'-Dimethylbenzidine	ND	ND	ND	0.002	ND
3,3'-Dimethyl-4,4'-diaminodiphenylmethane	ND	ND	ND	0.002	ND
p-Cresidine	ND	ND	ND	0.002	ND
4,4'-Methylene-bis-(2-chloroaniline)	ND	ND	ND	0.002	ND
4,4'-Oxydianiline	ND	ND	ND	0.002	ND
4,4'-Thiodianiline	ND	ND	ND	0.002	ND
o-Toluidine	ND	ND	ND	0.002	ND
2,4-Toluylenediamine	ND	ND	ND	0.002	ND
2,4,5-Trimethylaniline	ND	ND	ND	0.002	ND
o-Anisidine	ND	ND	ND	0.002	ND
4-Aminoazobenzene	ND	ND	ND	0.002	ND
m-Phenylenediamine	ND	ND	ND	0.002	ND
Benzoguanamin	ND	ND	ND	0.05	5
4,4-Methylene-bis-3(chloro-2,6-diethylaniline)	ND	ND	ND	0.01	0.05
Total of other primary aromatic amine	ND	ND	ND	0.01	0.01



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ND = Not detected

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

Compliance: 3rd migration result < limit (if limit is ND, 1st migration result < limit)
 3rd migration result ≤ 2nd migration result ≤ 1st migration result

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

3 Overall Migration Test (EU Commission Regulation (EU) No 10/2011)

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

Test condition:

<u>Aqueous food simulant:</u>	
<u>Test no.</u>	<u>Time and temperature</u>
OM2	10 days at 40 °C
<u>Fatty food simulant:</u>	
<u>Test no.</u>	<u>Time and temperature</u>
OM2	10 days at 40 °C

<u>Tested component</u>	<u>Food simulant</u>	<u>Time(hour)</u>	<u>Temperature(°C)</u>
(1) (2) (3)	3% (w/v) Acetic acid	240	40
	50% (v/v) Ethanol	240	40

(1) Transparent PE plastic film (inner bag).

Food Simulant	Result				Limit mg/dm²
	1st migration mg/dm²	2nd migration mg/dm²	3rd migration mg/dm²	Reporting Limit mg/dm²	
3% (w/v) Acetic acid	ND	ND	ND	3	10
50% (v/v) Ethanol	ND	ND	ND	3	10



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Tests Conducted

(2) Semi-transparent white PE plastic (stopper of bag).

Food Simulant	Result				
	1 st migration mg/dm ²	2 nd migration mg/dm ²	3 rd migration mg/dm ²	Reporting Limit mg/dm ²	Limit mg/dm ²
3% (w/v) Acetic acid	ND	ND	ND	3	10
50% (v/v) Ethanol	ND	ND	ND	3	10

(3) White PE plastic (nozzle).

Food Simulant	Result				
	1 st migration mg/dm ²	2 nd migration mg/dm ²	3 rd migration mg/dm ²	Reporting Limit mg/dm ²	Limit mg/dm ²
3% (w/v) Acetic acid	ND	ND	ND	3	10
50% (v/v) Ethanol	ND	ND	ND	3	10

ND = Not detected

Ratio of food contact surface area to volume of component (1) used to establish the compliance of material or article = 4.04 dm² : 420 mL.

Ratio of food contact surface area to volume of component (2) used to establish the compliance of material or article = 0.24 dm² : 420 mL.

Ratio of food contact surface area to volume of component (3) used to establish the compliance of material or article = 0.28 dm² : 420 mL.

Compliance: 3rd migration result < limit (if limit is ND, 1st migration result < limit)
3rd migration result ≤ 2nd migration result ≤ 1st migration result

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

Component List

No.	Test Component Description(s)
(1)	Transparent PE plastic film (inner bag).
(2)	Semi-transparent white PE plastic (stopper of bag).
(3)	White PE plastic (nozzle).



Tests Conducted

Reference photo



Remark: The products in the reference photos 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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