

## Test Report

Number: GZHH00596025

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

Date: Jun 05, 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  
Testing Period : May 27, 2025 ~ Jun 04, 2025

### 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 components of submitted sample	EU RoHS Directive 2011/65/EU and its Amendment(s) including (EU) 2015/863 Article 4(1) on Restricted Substances Content	Pass

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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](https://verifyindex.intertek.com.cn/home/index?id=hl_report_verify)



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Tests Conducted

- EU RoHS Directive 2011/65/EU and its Amendment(s) including (EU) 2015/863 Article 4(1) on Restricted Substances Content

(A) Screening Test by XRF Spectroscopy

Cadmium (Cd), Lead (Pb), Mercury (Hg), Chromium (Cr) and Bromine (Br) content were measured with reference to IEC 62321-3-1 Edition 1.0: 2013 by XRF spectroscopy and chemical confirmation test for RoHS restricted substances.

(A) Results:

Screened Components	XRF Results		Chemical Confirmation Result
1	Cd	ND	NT
	Pb	ND	
	Hg	ND	
	Cr	ND	
	Br	ND	
2	Cd	ND	NT
	Pb	ND	
	Hg	ND	
	Cr	ND	
	Br	ND	
3	Cd	ND	NT
	Pb	ND	
	Hg	ND	
	Cr	ND	
	Br	ND	
4	Cd	ND	NT
	Pb	ND	
	Hg	ND	
	Cr	ND	
	Br	ND	
5	Cd	ND	Cr <sup>6+</sup> : Negative
	Pb	ND	
	Hg	ND	
	Cr	Inconclusive	
	Br	NT	
6	Cd	ND	Cr <sup>6+</sup> : Negative
	Pb	ND	
	Hg	ND	
	Cr	Inconclusive	
	Br	NT	
7	Cd	ND	Cr <sup>6+</sup> : Negative
	Pb	ND	
	Hg	ND	
	Cr	Inconclusive	
	Br	NT	



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Screened Components	XRF Results		Chemical Confirmation Result
8	Cd	ND	NT
	Pb	ND	
	Hg	ND	
	Cr	ND	
	Br	NT	
9	Cd	ND	Cr <sup>6+</sup> : Negative
	Pb	ND	
	Hg	ND	
	Cr	Inconclusive	
	Br	NT	
10	Cd	ND	NT
	Pb	ND	
	Hg	ND	
	Cr	ND	
	Br	ND	
11	Cd	ND	Cr <sup>6+</sup> : Negative
	Pb	ND	
	Hg	ND	
	Cr	Inconclusive	
	Br	NT	
12	Cd	ND	Cr <sup>6+</sup> : ND
	Pb	ND	
	Hg	ND	
	Cr	Inconclusive	
	Br	ND	
13	Cd	ND	Cr <sup>6+</sup> : Negative
	Pb	ND	
	Hg	ND	
	Cr	Inconclusive	
	Br	NT	
14	Cd	ND	NT
	Pb	ND	
	Hg	ND	
	Cr	ND	
	Br	ND	
15	Cd	ND	NT
	Pb	ND	
	Hg	ND	
	Cr	ND	
	Br	ND	



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(B) Phthalate Screening Test

Screened Components	Items	Screened Results(phthalates)	Chemical Confirmation Result
1	DEHP	P	NT
	BBP	P	
	DBP	P	
	DIBP	P	
2	DEHP	P	NT
	BBP	P	
	DBP	P	
	DIBP	P	
3	DEHP	P	NT
	BBP	P	
	DBP	P	
	DIBP	P	
4	DEHP	P	NT
	BBP	P	
	DBP	P	
	DIBP	P	
10	DEHP	P	NT
	BBP	P	
	DBP	P	
	DIBP	P	
14	DEHP	P	NT
	BBP	P	
	DBP	P	
	DIBP	P	
15	DEHP	P	NT
	BBP	P	
	DBP	P	
	DIBP	P	

DBP = Dibutyl phthalate  
 DEHP = Di-(2-ethyl hexyl) phthalate  
 BBP = Benzyl butyl phthalate  
 DIBP = Di-(iso-butyl) phthalate

ND = Not detected  
 NT = Not tested  
 P = Pass

Negative = A negative test result indicated the concentration of Cr(VI) is less than threshold of 0.1 µg/cm<sup>2</sup> for boiling-water-extraction procedures by UV-VIS Spectrophotometer analysis. The coating is considered a non-Cr(VI) based coating.



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(C) Screening Limits

(C1) XRF Screening limits in mg/kg for Regulated Elements in Various Matrices

Element	Polymer Materials	Metallic Materials	Composite Materials
Cd	$P \leq 70 < X < 130 \leq F$	$P \leq 70 < X < 130 \leq F$	$P \leq 70 < X < 150 \leq F$
Pb	$P \leq 700 < X < 1300 \leq F$	$P \leq 700 < X < 1300 \leq F$	$P \leq 500 < X < 1500 \leq F$
Hg	$P \leq 700 < X < 1300 \leq F$	$P \leq 700 < X < 1300 \leq F$	$P \leq 500 < X < 1500 \leq F$
Cr	$P \leq 700 < X$	$P \leq 700 < X$	$P \leq 500 < X$
Br	$P \leq 300 < X$	Not applicable	$P \leq 250 < X$

(C2) Preliminary Screening limits in mg/kg for phthalates test.

Phthalates	Polymer Materials
Dibutyl phthalate (DBP)	$P \leq 600 < X$
Di-(2-ethyl hexyl) phthalate (DEHP)	$P \leq 600 < X$
Benzyl butyl phthalate (BBP)	$P \leq 600 < X$
Di-(iso-butyl) phthalate (DIBP)	$P \leq 600 < X$

P = Pass

X = Inconclusive result

**F = Fail**

mg/kg = milligram per kilogram = ppm

(D) Estimated Detection Limits in mg/kg for Regulated Elements in Various Matrices

Element	Polymer Materials	Metallic Materials	Composite Materials
Cd	50	70	70
Pb	100	200	200
Hg	100	200	200
Cr	100	200	200
Br	200	Not applicable	200



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**Disclaimers:**

This XRF Screening report is for reference purposes only. The applicant shall make its/his/her own judgment as to whether the information provided in this XRF Screening and Chemical Confirmation Test Report is sufficient for its/his/her purposes.

The results shown in this XRF Screening report will differ based on various factors, including but not limited to, the sample size, thickness, area, surface flatness, equipment parameters and matrix effect (e.g. plastic, rubber, metal, glass, ceramic etc.). Further wet chemical pre-treatment with relevant chemical equipment analysis is required to obtain quantitative data.

(E) Chemical Test Methods:

Testing Item	Testing Method	Detection Limit
Chromium (VI) (Cr(VI)) Content	With reference to IEC 62321-7-1 Edition 1.0:2015, by boiling water extraction and determined by UV-VIS Spectrophotometer	0.1 µg/cm <sup>2</sup>
Chromium (VI) (Cr(VI)) Content	With reference to IEC 62321-7-2 Edition 1.0:2017, Hexavalent chromium – Determination of hexavalent chromium (Cr(VI)) in polymers and electronics by the colorimetric method	10 mg/kg
Dibutyl phthalate (DBP), Di-(2-ethyl hexyl) phthalate (DEHP), Benzyl butyl phthalate (BBP) and Di-(iso-butyl) phthalate (DIBP)	With reference to IEC 62321-8 Edition 1.0:2017, by Gas Chromatographic-Mass Spectrometric (GC-MS) analysis	50 mg/kg

The test methods IEC 62321 series are the designated test methods in EN IEC 63000:2018.

(F) RoHS Requirement:

Restricted Substances	Limits
Cadmium (Cd)	0.01% (100 mg/kg)
Lead (Pb)	0.1% (1000 mg/kg)
Mercury (Hg)	0.1% (1000 mg/kg)
Chromium (VI) (Cr(VI))	0.1% (1000 mg/kg)
Polybrominated Biphenyls (PBBs)	0.1% (1000 mg/kg)
Polybrominated Diphenyl Ethers (PBDEs)	0.1% (1000 mg/kg)
Dibutyl phthalate (DBP)	0.1% (1000 mg/kg)
Di-(2-ethyl hexyl) phthalate (DEHP)	0.1% (1000 mg/kg)
Benzyl butyl phthalate (BBP)	0.1% (1000 mg/kg)
Di-(iso-butyl) phthalate (DIBP)	0.1% (1000 mg/kg)

The limit was quoted according to EU RoHS Directive 2011/65/EU and its Amendment(s) including (EU) 2015/863 Article 4(1) on Restricted Substances Content.



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#### Tested Components:

- (1) Semi-transparent white soft plastic.
- (2) Black plastic.
- (3) Semi-transparent white plastic.
- (4) Black plastic.
- (5) Silver color metal.
- (6) Silver color metal excluding coatings.
- (7) Silver color metal.
- (8) Bright silver color metal.
- (9) Silver color metal.
- (10) Coatings (black, white) on metal.
- (11) Matt silver color metal.
- (12) Light grey core.
- (13) Silver color metal with black material.
- (14) Black soft plastic.
- (15) Semi-transparent white double side adhesive tape





## Test Report

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### Tests Conducted

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.

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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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