

## Test Report

Number: GZHH00487060

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

Date: Apr 07, 2023

### Sample Description:

Twenty (20) pieces of submitted sample said to be :  
Item Name : **Water Bottles**  
Item No. : **Flexi /FXI**  
Country of Origin : **China**  
Date Sample Received : **Mar 29, 2023**  
Testing Period : **Mar 29, 2023 ~ Apr 04, 2023**

Tested sample



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### Tests conducted:

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

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### Conclusion:

Tested sample	Standard	Result
Tested component(s) of submitted sample(s)	Restriction of the use of certain hazardous substance in electrical and electronic equipment (RoHS Directive 2011/65/EU and amendment Commission Delegated Directive (EU) 2015/863)	Pass

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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 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	NT
	Pb	ND	
	Hg	ND	
	Cr	ND	
	Br	ND	



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Number: GZHH00487060

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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	
7	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 0.10 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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Number: GZHH00487060

Tests Conducted

(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



Tests Conducted

**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 <sup>6+</sup> ) Content	With reference to IEC 62321-7-1 Edition 1.0:2015, by boiling water extraction and determined by UV-VIS Spectrophotometer	0.10 µg/cm <sup>2</sup>
Dibutyl phthalate (DBP) & Di-(2-ethyl hexyl) phthalate (DEHP) & Benzyl butyl phthalate (BBP) & 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

(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 <sup>6+</sup> )	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 above limits were quoted from Directive 2011/65/EU and amendment Commission Delegated Directive (EU) 2015/863 for homogeneous material.



## Test Report

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### Tests Conducted

#### Tested Components:

- (1) Black plastic.
- (2) Black plastic with inaccessible glue.
- (3) Semi-transparent white silicone.
- (4) White silicone.
- (5) Silver color metal.
- (6) Silver color metal.
- (7) Beige bamboo.



## Test Report

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### 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.

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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.

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.

