

CENTRE OF TESTING SERVICE INTERNATIONAL

**OPERATE ACCORDING TO ISO/IEC 17025** 

# **TEST REPORT**

# RoHS 2011/65/EU

Test Report Number : CGZ3150519-01353-C



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#### **General Information** 1

### 1.1 Application Details

Name	:	Xindao B.V.
Address	:	P.O. Box 3082, 2280 GB, Rijswijk, The Netherlands
Contact	:	kevin
Telephone	:	/
Fax	:	/
Mobile telephone	:	/
Email	:	kevin.zsz@xindao.com

#### 1.2 Manufacturer & Buyer

Manufacturer name Address		Xindao B.V. P.O. Box 3082, 2280 GB, Rijswijk, The Netherlands
Contact	:	kevin
Telephone	:	/
Fax	:	/
Mobile telephone	:	/
Email	:	kevin.zsz@xindao.com
Buyer name	:	/

### 1.3 Description of the Test Item

:	4600 mAh thin powerbank
:	P324.75
:	PU015862、PU015188
:	/
:	EFFECTIVE
	:

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#### 2 Test results

### 2.1 Sample Receiving Date

May 19, 2015

#### 2.2 Testing Period

May 19, 2015 to May 20, 2015

#### 2.3 Test Requested

In accordance with the RoHS Directive 2011/65/EU Annex II.

#### 2.4 Test Method

- 1. X-Ray Fluorescence Spectrometry method in reference to IEC 62321-3-1:2013.
- 2. Chemical test method

Test Item(s)	Test Method	Test Instrument		
Lead (Pb)	With reference to IEC 62321-5:2013	ICP-AES		
Cadmium (Cd)	With reference to IEC 62321-5:2013	ICP-AES		
Mercury (Hg)	With reference to IEC 62321-4:2013	ICP-AES		
Chromium VI (Cr VI)	With reference to IEC 62321:2008	UV-Vis		
PBBs	With reference to IEC 62321:2008	GC-MS		
PBDEs		96-143		

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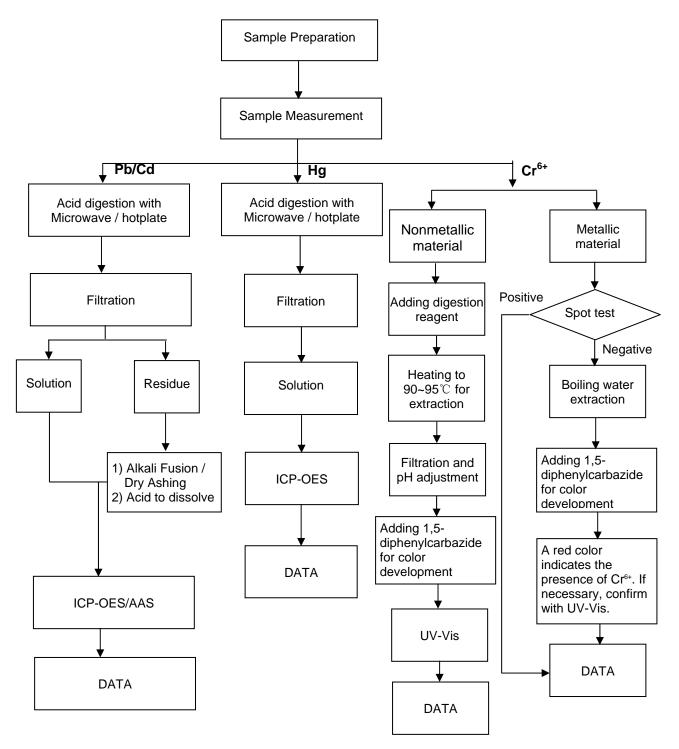
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### 2.5 Chemical Test Method Flow Chart



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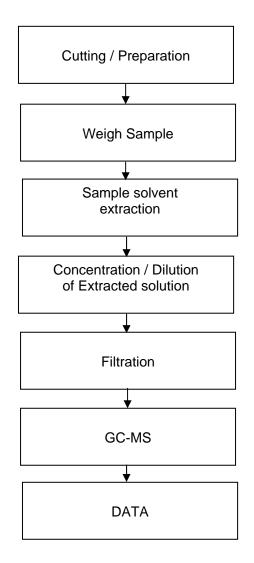
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#### **PBBs / PBDEs**



#### 2.6 Conclusion

Based on the performed tests on submitted samples, the results of Lead, Cadmium, Mercury, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE) comply with the limits as set by RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC.

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#### 2.7 Test Results

#### 2.7.1 Test results of all parts by EDXRF and chemical confirmation

No.		Sample Desc	ription		F	Result	S	Chemical Confirmation Result	
INO.		Pb	Cd	Hg	Cr	Br	(Unit=mg/kg)		
1		Gre	/ plastic	Р	Р	Ρ	Ρ	Ρ	
2	Cover	Green	Green plastic	Р	Р	Ρ	Ρ	Ρ	
3		cover	Black coating	Р	Р	Ρ	Ρ	Ρ	
4		Silvery metal	screw	Р	Р	Ρ	Ρ	/	
5	Yellov	wdouble-side a	dhesive tape	Р	Р	Ρ	Ρ	Ρ	
6		Black cable jacket			Р	Ρ	Ρ	Ρ	
7	Wire	Red ca	able jacket	Р	Р	Ρ	Ρ	Ρ	
8		Silv	ery wire	Ρ	Р	Ρ	Ρ	/	
9		Green fiberboard		Ρ	Р	Ρ	Ρ	Х	PBBs,PBDEs=N.D.
10		Cop	oper foil	Ρ	Р	Ρ	Ρ	/	
11		So	lder tin	Х	Р	Ρ	Ρ	/	Pb=662
12			Silvery metal cover	Р	Р	Ρ	Ρ	/	
13	РСВ	Connection	Black plastic	Р	Р	Ρ	Ρ	Ρ	
14		base	White plastic	Р	Р	Ρ	Ρ	Ρ	
15			Metal wafer	Р	Р	Ρ	Ρ	/	
16		Chip	resistor	Х	Р	Ρ	Ρ	Ρ	Pb=1.5×10 <sup>3 △</sup>
17		Chip	capacitor	Р	Р	Ρ	Ρ	Ρ	

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No.		Sample Descr	intion	Results					Chemical Confirmation Result	
NO.					Cd	Hg	Cr	Br	(Unit=mg/kg)	
18		IC	Black body	Р	Ρ	Ρ	Ρ	Х	PBBs,PBDEs=N.D.	
19			Pin	Р	Ρ	Ρ	Ρ	/		
20		Inductance	Grey body	Ρ	Ρ	Ρ	Ρ	Ρ		
21		Inductance	Pin	Р	Ρ	Ρ	Ρ	/		
22	PCB	Chij	D LED	Р	Ρ	Ρ	Ρ	Х	PBBs,PBDEs=N.D.	
23			Black plastic	Р	Ρ	Ρ	Ρ	Ρ		
24		Lockless	White plastic	Р	Ρ	Ρ	Ρ	Ρ		
25			switch	Metal dome	Р	Ρ	Ρ	Х	/	CrVI=N.D.
26			Pin	Р	Р	Ρ	Ρ	/		
27		White plu	ug material	Р	Р	Ρ	Ρ	Ρ		
28		White pla	astic frame	Р	Р	Ρ	Ρ	Х	PBBs,PBDEs=N.D.	
29		Black pla	astic frame	Р	Ρ	Ρ	Ρ	Ρ		
30		Silvery m	netal cover	Р	Р	Ρ	Ρ	/		
31	USB wire	Silvery n	netal wafer	Р	Р	Р	Ρ	/		
32		White	e jacket	Р	Ρ	Р	Ρ	Ρ		
33		White ca	able jacket	Р	Р	Р	Ρ	Ρ		
34		Grey ca	ble jacket	Р	Р	Р	Р	Ρ		
35		Copper-c	olored wire	Р	Ρ	Ρ	Р	/		

: P = Below Limit (Pass) Note

- F = Over Limit (Fail)
- X = Inconclusive
- N.D. = not detected (less than MDL)
- 1mg/kg=1ppm=0.0001%

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 $^{ riangle}$  According to the declaration from client, the source of lead in the sample could be from the ceramic parts. Lead in electronic ceramic parts is exempted from the requirement of RoHS Directive (2011/65/EU).

Remarks:

(1) Results are obtained by EDXRF for primary screening, and further chemical testing is recommended to be performed, if the concentration exceeds the below warning value according to IEC 62321-3-1: 2013.

Element	Polymer Materials Metallic Materials		Electronic Materials
Pb	P ≤ 500 < X < 1300 ≤ F	P ≤ 500 < X < 1300 ≤ F	P ≤ 500 < X < 1300 ≤ F
Cd	P ≤ 50 < X < 130 ≤ F	P ≤ 50 < X < 130 ≤ F	X < 130 ≤ F
Hg	P ≤ 500 < X < 1300 ≤ F	P ≤ 500 < X < 1300 ≤ F	P ≤ 500 < X < 1300 ≤ F
Cr	P ≤ 700 < X	P ≤ 700 < X	P ≤ 500 < X
Br	P ≤ 250 < X	/	P ≤ 250 < X

(2) Chemical Confirmation Result acceptable Limit:

Test items	Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Chromium (CrVI)	PBBs	PBDEs
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Acceptable Limit	1000	100	1000	1000	1000	1000

\*\*\*End of Report\*\*\*

(3) The test results only apply to the materials requested by applicant.

Written by: Amanda Inspected by: Approved by:



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**Sample Reference Photo** 3



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