

# TEST REPORT

**APPLICANT** : Xindao B.V.

**ADDRESS** : P.O. Box 3082, 2280 GB, Rijswijk, The Netherlands

**SAMPLE DESCRIPTION** : Solar panel power hiking backpack

**ITEM NO.** : P762.38

**COUNTRY OF ORIGIN** : China

**COUNTRY OF DESTINATION** : Europe

**SAMPLE RECEIVED DATE** : 31-Sep-2018

**SAMPLE RESUBMISSION DATE** : 14-Sep-2018

**TURN AROUND TIME** : 31-Sep-2018 to 20-Sep-2018

**TEST SPECIFICATION** : Total concentration of Lead, Cadmium, Mercury, Chromium VI, Polybrominated Biphenyls (PBBs) and Polybrominated Diphenyl Ethers (PBDEs) in Electrical and Electronic Equipment in accordance with EC Directive 2011/65/EU (RoHS)

**CONCLUSION** : Based on the analysis on the submitted sample(s), the test results do comply with the concentration limits as specified in Annex II to Directive 2011/65/EU.

The following test item(s) was/were performed on submitted sample(s) and/or component(s) confirmed by applicant

\*\*\*\*\* FOR FURTHER DETAILS, PLEASE REFER TO THE FOLLOWING PAGE(S) \*\*\*\*\*

Signed for and on behalf of  
Eurofins Product Testing Service (Shanghai) Co., Ltd



Joyce Liu  
Lab Manager

*Results obtained refer only to samples, products or material received in Laboratory, as described in point related to sample description, and tested in conditions shown in present report. Eurofins Product Testing Service (Shanghai) Co., Ltd ensures that this job has been performed according to our Quality System and complying contract and legal conditions. If you happen to have any comments, please do it by sending email to [info.sh@eurofins.com](mailto:info.sh@eurofins.com) and referring to this report number. Reproduction of this document is only valid if it is done completely and under the written permission of Eurofins Product Testing Service (Shanghai) Co., Ltd. If you happen to have any complaints, please do it by sending email to [china.complaint@eurofins.com](mailto:china.complaint@eurofins.com) and referring to this report number.*

**SAMPLE PHOTO****EFSH18082399-CG-02**

\*\*\*TO BE CONTINUED\*\*\*

## COMPONENT PHOTO(S)



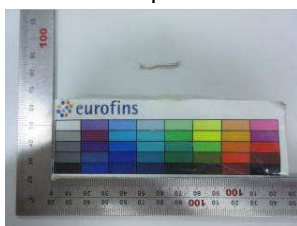
1



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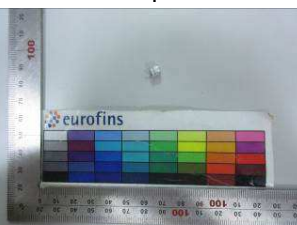
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\*\*\*TO BE CONTINUED\*\*\*

## TEST RESULT

### Screening Test by XRF Spectroscopy

As specified by client, to analyze the contents of Lead, Cadmium, Mercury, Chromium, Bromine in the submitted sample by XRF. Screening limits in mg/kg for regulated elements in various matrices according to IEC 62321-3-1:2013 Ed.1

No.	Component	Test Results (mg/kg)				
		Cd	Pb	Hg	Cr	Br
		Limit (mg/kg)				
		100	1000	1000	Cr(VI): 1000	PBB:1000 PBDE:1000
1	Black plastic block 1	ND	ND	ND	ND	ND
2	Red rubber wire sheath	ND	ND	ND	ND	ND
3	Black rubber wire sheath	ND	ND	ND	103	ND
4	Silver metal wire	ND	ND	ND	NC	NA
5	Silver metal block	ND	ND	ND	NC	NA
6	Black plastic block 2	ND	ND	ND	ND	ND
7	Silver electronic component	ND	ND	ND	NC	NA
8	Black electronic component 1	ND	ND	ND	ND	ND
9	Transparent plastic bulb	ND	ND	ND	ND	NC
10	Black metal screw	ND	ND	ND	NC	NA
11	Circuit board	12	ND	ND	ND	NC
12	Silver metal soldering tin	ND	NC	ND	NC	NA
13	Black electronic component 2	ND	ND	ND	ND	ND
14	Black electronic component 3	ND	ND	ND	ND	NC
15	Black plastic block 3	ND	ND	ND	ND	NC
16	Black rubber block	ND	ND	ND	ND	ND
17	White rubber block	ND	ND	ND	ND	ND
18	Black plastic block 4	ND	ND	ND	ND	ND

\*\*\*TO BE CONTINUED\*\*\*

## TEST RESULT

Abbreviation:	Pb	denotes Lead
	Cd	denotes Cadmium
	Hg	denotes Mercury
	Cr	denotes Chromium
	Cr(VI)	denotes Chromium(VI)
	Br	denotes Bromine
	PBBs	denotes Total Polybrominated Biphenyls
	PBDEs	denotes Total Polybrominated Diphenyl Ethers
	NA	denotes Not Applicable
	ND	denotes Not Detected (Cd<10mg/kg, Pb/ Hg/ Cr<100mg/kg, Br<300mg/kg)
	NC	denotes Not Conclusive

XRF Screening limits for different materials:

Element	Polymers	Metals	Composite Material
Cd	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$LOD < X < (150+3\sigma) \leq OL$
Pb	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Hg	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Br	$BL \leq (300-3\sigma) < X$	/	$BL \leq (250-3\sigma) < X$
Cr	$BL \leq (700-3\sigma) < X$	$BL \leq (700-3\sigma) < X$	$BL \leq (500-3\sigma) < X$

**Note:**

BL= Below limit

X = The region where further investigation is necessary

OL = Over limit

$3\sigma$  = The repeatability of the analyzer at the action level

LOD = Limit of detection

XRF testing results are only used for reference.

\*\*\*TO BE CONTINUED\*\*\*

## TEST RESULT

### B. Confirmation Test by Wet Chemistry

Tested Item(s)	Test Method	Measured Equipment	MDL
Lead (Pb) /Cadmium (Cd)	IEC 62321-5:2013 Ed.1	ICP-OES	2 mg/kg
Mercury (Hg)	IEC 62321-4:2013 Ed.1	ICP-OES	2 mg/kg
Hexavalent Chromium (Cr(VI))	IEC 62321-7-1:2015 Ed.1	UV-Vis	0.01 $\mu$ g/cm <sup>2</sup>
	IEC62321-7-2:2017		10 mg/kg
Polybrominated Biphenyls (PBBs)	IEC 62321-6: 2015 Ed.1	GC-MS	50 mg/kg
Polybrominated DiphenylEthers (PBDEs)			

Component No.	Boiling-water-extraction for Cr(VI) (*1)
4	Negative
5	Negative
7	Negative
10	Negative
12	Negative

#### Remark:

(\*1) The screening result of Chromium(VI) was found in the inconclusive region, Thus the Chromium(VI) content in surface layer have been confirmed with reference to IEC 62321-7-1:2015.

Negative – The Cr(VI) concentration is below 0.10 $\mu$ g/cm<sup>2</sup>.The coating is considered a non-Cr(VI) based coating.

Component No.	Test Results (mg/kg)					
	Cd	Pb	Hg	Cr (VI)	PBBs	PBDEs
	Limit (mg/kg)					
	100	1000	1000	1000	1000	1000
9	-	-	-	-	ND	ND
11	-	-	-	-	ND	ND
12	-	264	-	-	-	-
14	-	-	-	-	ND	ND
15	-	-	-	-	ND	ND

#### Note:

The sample had been dissolved totally tested for Lead, Cadmium, Mercury.

MDL = method detection limit

ND = not detected (<MDL)

mg/kg = ppm = parts per million

$\mu$ g/cm<sup>2</sup> = micrograms per square centimeter

\*\*\*END OF THE REPORT\*\*\*