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## TEST REPORT

**APPLICANT** : Xindao B.V.

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

SAMPLE DESCRIPTION Push lamp

ITEM NO. P513.96\*

**COUNTRY OF ORIGIN** China

**COUNTRY OF DESTINATION** Europe

**SAMPLE RECEIVED DATE** : 05-Jul-2016

**TURN AROUND TIME** : 05-Jul-2016 to 13-Jul-2016, 7 Working Days

**TEST SPECIFICATION** : EC Directive 2011/65/EU —The Restriction of the Use of

Certain Hazardous Substances in Electrical and Electronic

Equipment — (RoHS)

CONCLUSION Based on the analysis on the submitted sample(s), the test

results do comply with the RoHS directive 2011/65/EU.

**Eurofins (Shanghai) contact information** 

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

Signed for and on behalf of

Eurofins Product Testing Service (Shanghai) Co., Ltd

Terric Ji

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 sh.info@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 chinacomplaint@eurofins.com and referring to this report number.



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## **SAMPLE PHOTO**

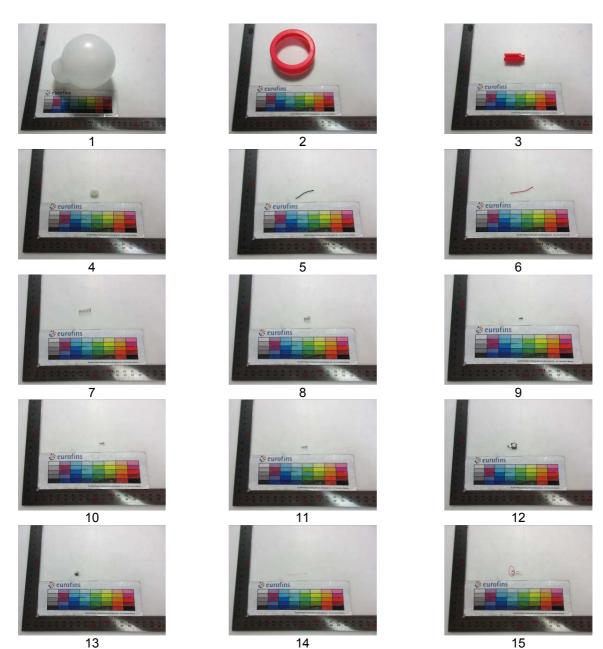


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## **COMPONENT PHOTO(S)**



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## **COMPONENT PHOTO(S)**



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### **TEST RESULT**

#### A. 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

		Test Results (m				
	Component	Cd	Pb	Hg	Cr	Br
No.		Limit (mg/kg)				
		100	1000	1000	Cr(VI):1000	PBB:1000
						PBDE:1000
1	White plastic shell	ND	ND	ND	ND	ND
2	Red plastic shell	ND	ND	ND	ND	ND
3	Red plastic block	ND	ND	ND	ND	ND
4	White plastic block	ND	ND	ND	ND	ND
5	Black rubber wire sheath	ND	ND	ND	437	ND
6	Red rubber wire sheath	ND	ND	ND	465	ND
7	Silver metal spring 1	ND	ND	ND	NC	NA
8	Silver metal spring 2	ND	ND	ND	NC	NA
9	Silver metal spring 3	ND	ND	ND	NC	NA
10	Silver metal screw 1	ND	ND	ND	NC	NA
11	Silver metal screw 2	ND	ND	ND	NC	NA
12	Silver metal sheet 1	ND	ND	ND	NC	NA
13	Silver metal sheet 2	ND	ND	ND	NC	NA
14	Copper metal wire	ND	ND	ND	NC	NA
15	Transparent glass blub	ND	ND	ND	ND	NC
16	Silver metal wire 1	ND	ND	ND	NC	NA
17	Silver coating	ND	ND	ND	447	ND
18	Black plastic block	ND	ND	ND	ND	ND
19	Multicolor electron component	ND	ND	ND	569	ND
20	Silver metal wire 2	ND	ND	ND	NC	NA
21	Silver metal sheet 3	11	ND	ND	NC	NA
22	Silver metal soldering tin	ND	ND	ND	NC	NA

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



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### **TEST RESULT**

XRF Screening limits for different materials:

Element	Polymers	Metals	Composite Material	
Cd	BL ≤(70-3σ) <x <<br="">(130+3σ) ≤ OL</x>	BL $\leq$ (70-3σ) $<$ X $<$ (130+3σ) $\leq$ OL	LOD <x< (150+3σ)="" td="" ≤ol<=""></x<>	
Pb	BL ≤ (700-3σ) <x <<br="">(1300+3σ) ≤OL</x>	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL	BL $\leq$ (500-3σ) $<$ X $<$ (1500+3σ) $\leq$ OL	
Hg	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL	BL ≤ (500-3σ) <x <<br="">(1500+3σ) ≤OL</x>	
Br	BL ≤(300-3σ) < X	/	BL ≤ (250-3 $\sigma$ ) < X	
Cr	BL ≤ (700-3σ) <x< td=""><td>BL ≤ (700-3σ) <x< td=""><td>BL≤(500-3σ) <x< td=""></x<></td></x<></td></x<>	BL ≤ (700-3σ) <x< td=""><td>BL≤(500-3σ) <x< td=""></x<></td></x<>	BL≤(500-3σ) <x< td=""></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.

#### 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
Hoveyalont Chromium (Cr(\(/I\))	IEC 62321-7-1:2015 Ed.1	UV-Vis	0.01µg/cm <sup>2</sup>
Hexavalent Chromium (Cr(VI))	IEC 62321:2008 Ed.1 Annex C	0 0 - 0 15	2 mg/kg
Polybrominated Biphenyls		GC-MS	50 mg/kg
(PBBs)	IEC 62321-6: 2015 Ed.1		
Polybrominated DiphenylEthers	1EC 02321-0. 2013 Eu.1		
(PBDEs)			



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### **TEST RESULT**

Component No.	Boiling-water-extraction for Cr(VI) (*1)			
7	Negative			
8	Negative			
9	Negative			
10	Negative			
11	Negative			
12	Negative			
13	Negative			
14	Negative			
16	Negative			
20	Negative			
21	Negative			
22	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 0.10µg/cm<sup>2</sup>. The coating is considered a non-Cr(VI) based coating.

	Test Results (mg/kg)					
Component No.	Cd	Pb	Hg	Cr (VI)	PBBs	PBDEs
Component No.	Limit (mg/kg)					
	100	1000	1000	1000	1000	1000
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

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