

TEST REPORT

<u>APPLICANT</u>	: Xindao B.V.
<u>ADDRESS</u>	: P.O. Box 3082, 2280 GB, Rijswijk, The Netherlands
<u>SAMPLE DESCRIPTION</u>	: GINKGO solar tree
<u>ITEN NO.</u>	: P323.11*
<u>COUNTRY OF ORIGIN</u>	: China
<u>COUNTRY OF DESTINATION</u>	: Europe
<u>SAMPLE RECEIVED DATE</u>	: 10-Jan-2014
<u>SAMPLE RESUBMISSION DATE</u>	: 20-Feb-2014
<u>TURN AROUND TIME</u>	: 20-Feb-2014 To 28-Feb-2014, 7 working days
<u>TEST SPECIFICATION</u>	: EC Directive 2011/65/EU —The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment — (RoHS)
<u>TEST RESULT</u>	: Based on the analysis on the submitted sample(s), the test results do comply with the RoHS directive 2011/65/EU.

Eurofins (Shanghai) contact informationCustomer service: EmilyDeng@eurofins.com / 021-61819259Sales specialist: EricSun@eurofins.com / 021-61819212/ 13816616371

***** 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

SAMPLE PHOTO



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COMPONENT PHOTO(S)



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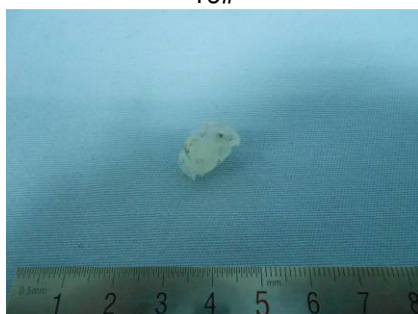
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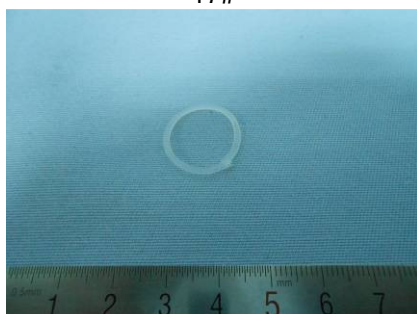
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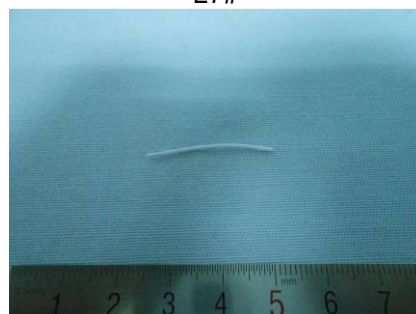
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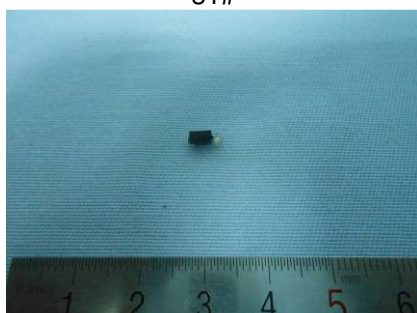
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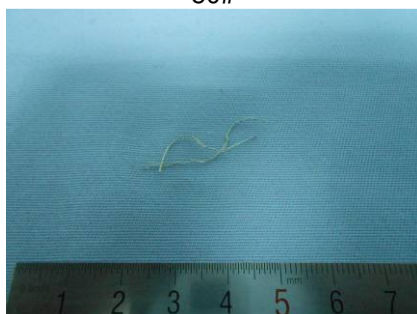
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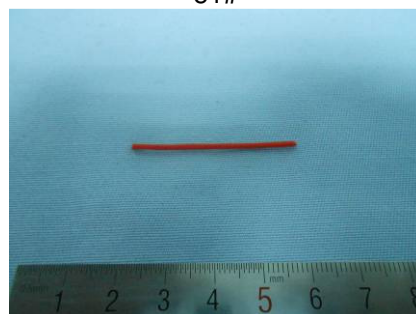
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TO BE CONTINUED

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

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	Yellow wooden holder (shell)	N.D.	N.D.	N.D.	N.D.	N.D.
2	White plastic base plate (base plate)	N.D.	N.D.	N.D.	N.D.	N.D.
3	Silvery metal base cover (base plate)	N.D.	N.D.	N.D.	N.D.	N.A.
4	Silvery metal screw (shell)	N.D.	N.D.	N.D.	N.C.	N.A.
5	Black rubber pad (base plate)	N.D.	N.D.	N.D.	N.D.	N.D.
6	Transparent plastic lamp shade (base plate)	N.D.	N.D.	N.D.	N.D.	N.D.
7	Silvery metal screw (solar plate)	N.D.	N.D.	N.D.	N.C.	N.A.
8	Silvery metal screw (PCB)	N.D.	N.D.	N.D.	N.C.	N.A.
9	Black rubber ring (base plate)	N.D.	N.D.	N.D.	N.D.	N.D.
10	White solid gum (PCB)	N.D.	N.D.	N.D.	N.D.	N.D.
11	Transparent plastic label with black and red words (label)	N.D.	N.D.	N.D.	N.D.	N.D.
12	Orange plastic film (power)	N.D.	N.D.	N.D.	N.D.	N.D.
13	Silicon plate (solar plate)	N.D.	N.D.	N.D.	N.D.	N.D.
14	Black plastic plate (solar plate)	N.D.	N.D.	N.D.	N.D.	N.C.
15	Transparent plastic film (solar plate)	N.D.	N.D.	N.D.	N.D.	N.D.
16	Silvery metal wire (solar plate)	N.D.	N.D.	N.D.	N.D.	N.A.
17	Silvery metal solder tin (solar plate)	N.C.	N.C.	N.D.	N.D.	N.A.
18	Multicolor paper label (solar plate)	N.D.	N.D.	N.D.	N.D.	N.D.
19	White solid gum (solar plate)	N.D.	N.D.	N.D.	N.D.	N.D.
20	Translucence rubber ring (solar plate)	N.D.	N.D.	N.D.	N.D.	N.D.
21	Silvery metal USB shell (USB interface)	N.D.	N.D.	N.D.	N.C.	N.A.
22	White plastic frame (USB interface)	N.D.	N.D.	N.D.	N.D.	N.D.
23	Black rubber sheet (USB interface)	N.D.	N.D.	N.D.	N.D.	N.D.
24	Black rubber plug (plug)	N.D.	N.D.	N.D.	N.D.	N.D.
25	Black wire jacket (wire)	N.D.	N.D.	N.D.	N.D.	N.D.
26	Silvery metal pin (plug)	N.D.	N.D.	N.D.	N.D.	N.A.
27	Black wire jacket (wire)	N.D.	N.D.	N.D.	N.D.	N.D.
28	Green wire jacket (wire)	N.D.	N.D.	N.D.	N.D.	N.D.
29	Red wire jacket (wire)	N.D.	N.D.	N.D.	N.D.	N.D.
30	White wire jacket (wire)	N.D.	N.D.	N.D.	N.D.	N.D.
31	Gray plastic frame (USB interface)	N.D.	N.D.	N.D.	N.D.	N.D.
32	PCB	N.D.	N.D.	N.D.	N.D.	N.D.
33	Chip capacitor (PCB)	N.D.	N.D.	N.D.	N.D.	N.D.
34	Chip diode (PCB)	N.D.	N.D.	N.D.	N.D.	N.C.
35	IC (PCB)	N.D.	N.D.	N.D.	N.D.	N.D.

TO BE CONTINUED

TEST RESULT

36	Silvery metal solder tin (PCB)	N.C.	N.D.	N.D.	N.D.	N.A.
37	Black ceramic frame (inductance)	N.D.	N.D.	N.D.	N.D.	N.A.
38	Coppery metal coil (inductance)	N.D.	N.D.	N.D.	N.D.	N.A.
39	Silvery metal shell (USB interface)	N.D.	N.D.	N.D.	N.D.	N.A.
40	Silvery metal contact sheet (USB interface)	N.D.	N.D.	N.D.	N.D.	N.A.
41	White PBT frame (USB interface)	N.D.	N.D.	N.D.	N.D.	N.D.
42	PCB	N.D.	N.D.	N.D.	N.D.	N.D.
43	Silvery metal shell (USB interface)	N.D.	N.D.	N.D.	N.D.	N.A.
44	Red wire jacket (wire)	N.D.	N.D.	N.D.	N.D.	N.D.
45	Black wire jacket (wire)	N.D.	N.D.	N.D.	N.D.	N.D.
46	White PBT frame (USB interface)	N.D.	N.D.	N.D.	N.D.	N.A.
47	Coppery metal wire (wire)	N.D.	N.D.	N.D.	N.C.	N.A.
48	Silvery metal shell (switch)	N.D.	N.D.	N.D.	N.D.	N.A.
49	Golden metal contact sheet (switch)	N.D.	N.D.	N.D.	N.C.	N.A.
50	Silvery metal disk (switch)	N.D.	N.D.	N.D.	N.D.	N.A.
51	Chip triode (PCB)	N.D.	N.D.	N.D.	N.D.	N.C.
52	Gray wire jacket (wire)	N.D.	N.D.	N.D.	N.D.	N.D.
53	Silvery metal wire (wire)	N.D.	N.D.	N.D.	N.D.	N.A.
54	Red wire jacket (wire)	N.D.	N.D.	N.D.	N.D.	N.D.
55	Black wire jacket (wire)	N.D.	N.D.	N.D.	N.D.	N.D.
56	Silvery metal contact sheet (power PCB)	N.A.	N.A.	N.A.	N.A.	N.A.
57	IC (power PCB)	N.D.	N.D.	N.D.	N.D.	N.C.
58	PCB	N.D.	N.D.	N.D.	N.D.	N.C.

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
	N.A.	denotes Not Applicable
	N.D.	denotes Not Detected (Nonmetal<10mg/kg,Metal<50mg/kg)
	N.C.	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

3σ = 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 62321:2008 Ed.1 Annex B	UV-Vis	/
	IEC 62321:2008 Ed.1 Annex C		2 mg/kg
Polybrominated Biphenyls (PBBs)	IEC 62321:2008 Ed.1 Annex A	GC-MS	5 mg/kg
Polybrominated DiphenylEthers (PBDEs)			

Component No.	Spot test for Cr(VI) (*1)	Boiling-water-extraction for Cr(VI) (*1)
4	Negative	Negative
7	Negative	Negative
8	Negative	Negative
21	Negative	Negative
47	Negative	Negative
49	Negative	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.

Component No.	Test Results (mg/kg)					
	Cd	Pb	Hg	Cr (VI)	PBBs	PBDEs
	Limit (mg/kg)					
	100	1000	1000	1000	1000	1000
14	-	-	-	-	ND	ND
17	ND	49	-	-	-	-
34	-	-	-	-	ND	ND
36	-	48	-	-	-	-
51	-	-	-	-	ND	ND
57	-	-	-	-	ND	ND
58	-	-	-	-	ND	ND

Note:

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

MDL = Method Detection Limit

N.D. = Not Detected (<MDL)

mg/kg = ppm = parts per million

*** END OF THE REPORT ***