# TEST REPORT

| | | |
|---|---|---|
| **APPLICANT** | : | YONGKANG BEIV HOUSEWARES CO.,LTD |
| **ADDRESS** | : | NO. 16, HUANGCHENG 6TH STREET, ECONOMIC DEVELOPMENT ZONE, YONGKANG ,JINHUA ,ZHEJIANG, CHINA |
| **SAMPLE DESCRIPTION** | : | STAINLESS STEEL WATER BOTTLE/TUMBLER |
| **ITEM NO.** | : | BV-RB500-M |
| **SAMPLE RECEIVED DATE** | : | 16-Nov-2023 |
| **FURTHER INFORMATION DATE** | : | 29-Nov-2023 |
| **TURN AROUND TIME** | : | 16-Nov-2023 to 21-Dec-2023 |
| **TEST SPECIFICATION** | : | Total concentration of Lead, Cadmium, Mercury, Chromium VI, Polybrominated Biphenyls (PBBs), Polybrominated Diphenyl Ethers (PBDEs) , Bis(2-ethylhexyl) phthalate (DEHP) , Butyl benzyl phthalate (BBP) , Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP) in Electrical and Electronic Equipment in accordance with EC Directive 2011/65/EU and its amendment Directive (EU) 2015/863 (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 and its amendment Directive (EU) 2015/863 |

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

**Eurofins（Hangzhou）contact information**
**Customer service:** Daisy.He@cpt.eurofinscn.com/ +86 571 87203730
**Sales specialist:** Rock.Shen@cpt.eurofinscn.com/ +86 18650150898

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

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

Lincoln Shi
Lab Manager of HZ Chemical Laboratory

*Samples are obtained by express delivery, 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. Unless otherwise stated from the customer, regulation or the standard specification, Eurofins will consider the measurement uncertainty as calculated by our laboratory and apply according to ILAC G8:09/2019-(binary acceptance base on guard band). If you happen to have any comments, please do it by sending email to info.hz@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.*

## SAMPLE PHOTO(S)

| | |
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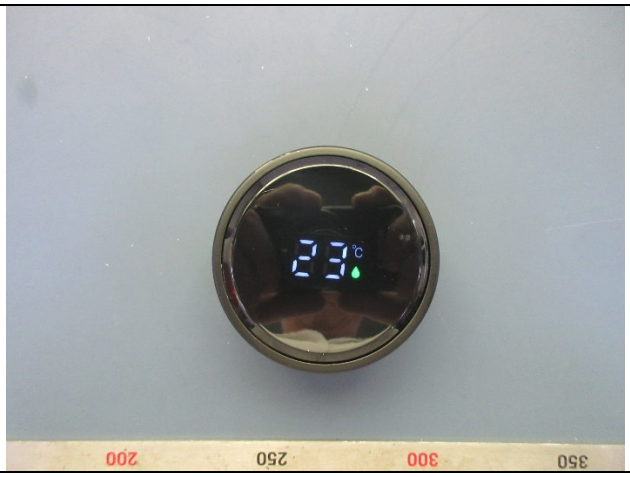
| |  |
| A | B |

# EFHZ23112913-CG-01

***TO BE CONTINUED***

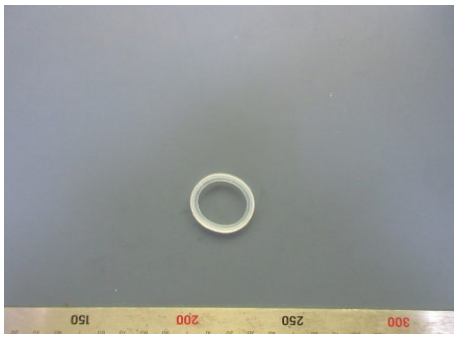
# REFERENCE PHOTO(S)

The reference samples have not been tested in current report, but according to customer´s request, the pictures have also been included. For sample tested in current report, please refer to “sample photo”.

***TO BE CONTINUED***

# COMPONENT PHOTO(S)

1



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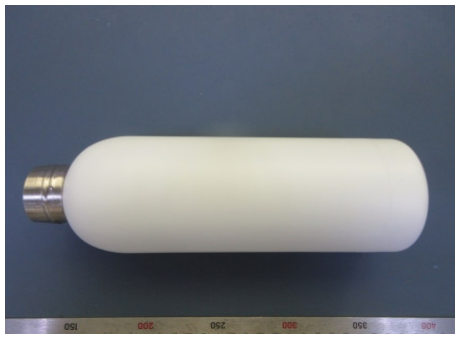

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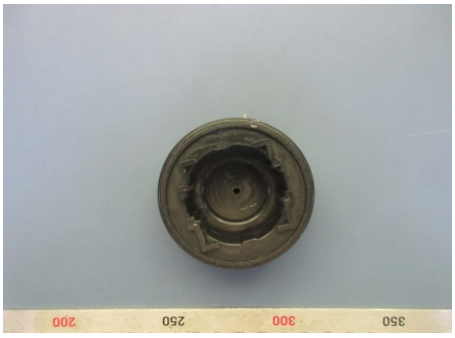

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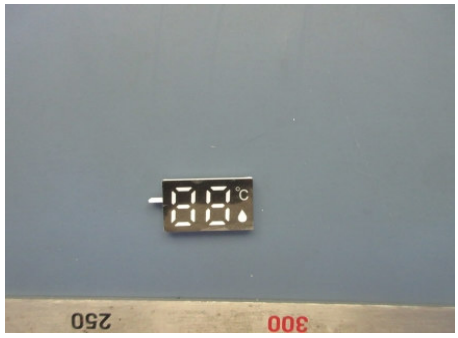

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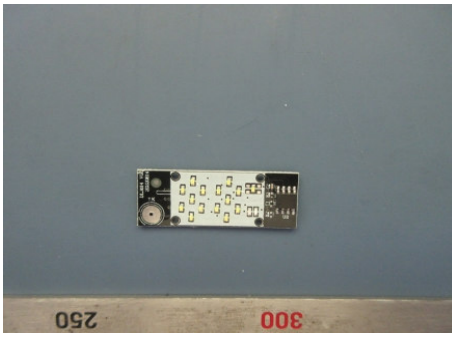

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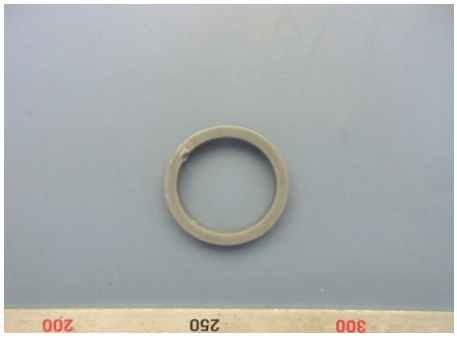

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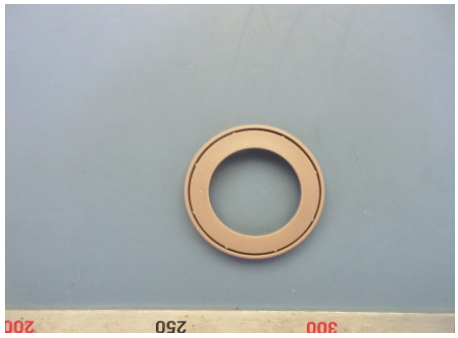

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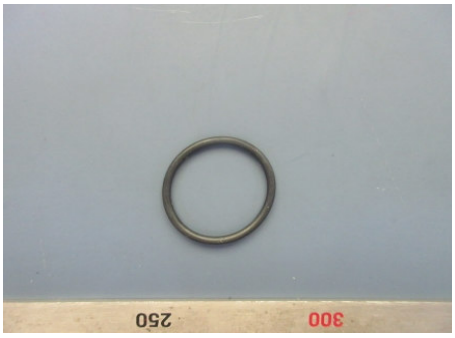

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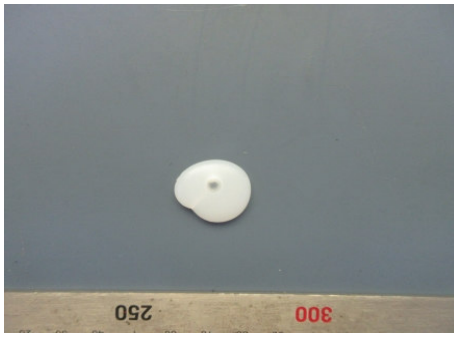

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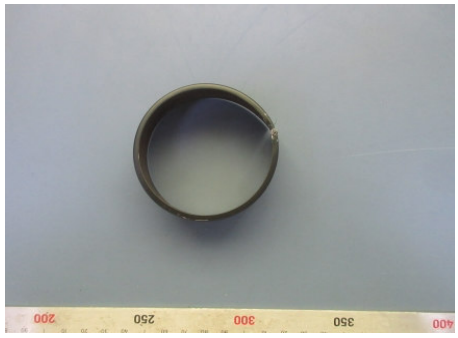

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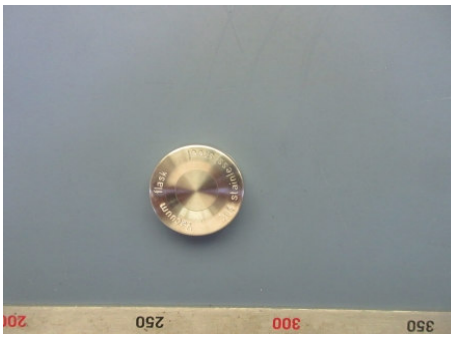
***TO BE CONTINUED***

# COMPONENT PHOTO(S)



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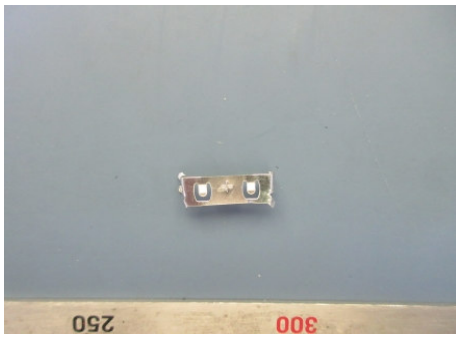

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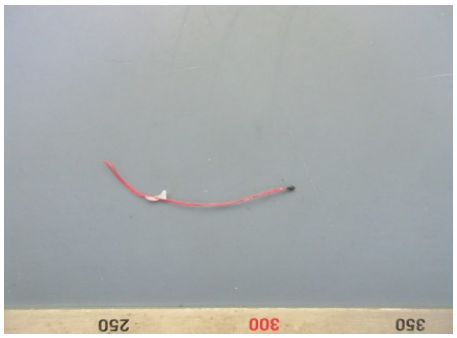

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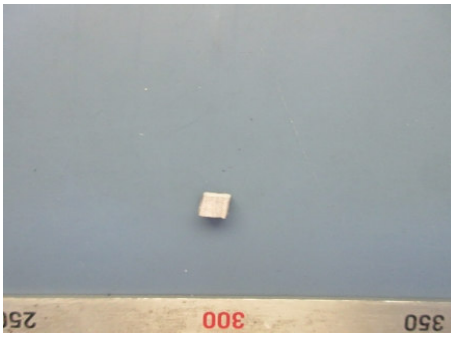

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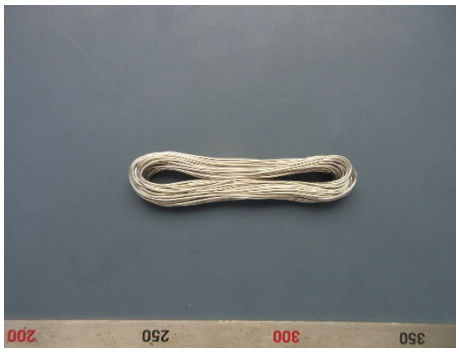

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***TO BE CONTINUED***

**Part 1**

**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

| 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 | BL | BL | BL | BL | BL |
| 2 | Transparent silicone | BL | BL | BL | BL | BL |
| 3 | Silver metal with white coating | BL | BL | BL | NC | NA |
| 4 | Black plastic blocks | BL | BL | BL | BL | BL |
| 5 | Black clear plastic cover | BL | BL | BL | BL | BL |
| 6 | White plastic with black coating | BL | BL | BL | BL | BL |
| 7 | Black/white circuit board | BL | BL | BL | BL | BL |
| 8 | Grey plastic rings | BL | BL | BL | BL | BL |
| 9 | Grey soft plastic rings | BL | BL | BL | BL | BL |
| 10 | Black rubber rings | BL | BL | BL | BL | BL |
| 11 | White dry glue | BL | BL | BL | BL | BL |
| 12 | Black metal ring | BL | BL | BL | NC | NA |
| 13 | Silver Metal Block 1 | BL | BL | BL | NC | NA |
| 14 | Silver Metal Block 2 | BL | BL | BL | NC | NA |
| 15 | Red wire wire | BL | BL | BL | NC | NA |
| 16 | Gray conductive cloth | BL | BL | BL | BL | BL |
| 17 | Silver solder | BL | NC | BL | NC | NA |

***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 |
| | NC | denotes Not Conclusive |
| | BL | denotes Below limit |

XRF Screening limits for different materials:

| Element | Polymers | Metals | Composite Material |
|---|---|---|---|
| Cd | BL ≤(70-3σ) ＜X ＜ (130+3σ) ≤ OL | BL ≤ (70-3σ) ＜ X ＜ (130+3σ) ≤OL | LOD＜X＜ (150+3σ) ≤OL |
| Pb | BL ≤ (700-3σ) ＜X ＜ (1300+3σ) ≤OL | BL ≤ (700-3σ) ＜ X ＜ (1300+3σ) ≤ OL | BL ≤ (500-3σ) ＜ X ＜ (1500+3σ) ≤ OL |
| Hg | BL ≤ (700-3σ) ＜ X ＜ (1300+3σ) ≤ OL | BL ≤ (700-3σ) ＜ X ＜ (1300+3σ) ≤ OL | BL ≤ (500-3σ) ＜X ＜ (1500+3σ) ≤OL |
| Br | BL ≤(300-3σ) ＜ X | / | BL ≤ (250-3σ) ＜ X |
| Cr | BL ≤ (700-3σ) ＜X | BL ≤ (700-3σ) ＜X | BL≤(500-3σ) ＜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 | ICP-OES | 10 mg/kg |
| Mercury (Hg) | IEC 62321-4:2013/AMD1:2017 | ICP-OES | 10 mg/kg |
| Hexavalent Chromium (Cr(VI)) | IEC 62321-7-1:2015 | UV-Vis | 0.01μg/cm$^2$ |
| | IEC62321-7-2:2017 | | 10 mg/kg |
| Polybrominated Biphenyls（PBBs） | IEC 62321-6:2015 | GC-MS | 50 mg/kg |
| Polybrominated DiphenylEthers (PBDEs) | | | |

| Component No. | Boiling-water-extraction for Cr(VI) (*1) |
|---|---|
| 3 | Negative |
| 12 | Negative |
| 13 | Negative |
| 14 | Negative |
| 15 | Negative |
| 17 | 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$^2$.The coating is considered a non-Cr(VI) based coating.

***TO BE CONTINUED***

# TEST RESULT

| Component No. | Test Results (mg/kg) | | | | | |
|---|---|---|---|---|---|---|
| | Cd | Pb | Hg | Cr (VI) | PBBs | PBDEs |
| | Limit (mg/kg) | | | | | |
| | 100 | 1000 | 1000 | 1000 | 1000 | 1000 |
| 17 | \ | 17 | \ | \ | \ | \ |

**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
$\mu g/cm^2$ = micrograms per square centimeter

***TO BE CONTINUED***

# TEST RESULT

**Part 2**

Diisobutyl phthalate (DIBP), Bis (2- ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP) and Dibutyl phthalate (DBP)

Test specification : Total concentration of Bis(2-ethylhexyl) phthalate (DEHP) , Butyl benzyl phthalate (BBP) , Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP) in accordance with EC Directive 2011/65/EU and its amendment Directive (EU) 2015/863 (RoHS)

Test method : IEC 62321-8:2017

Limit : Annex II to Directive 2011/65/EU and its amendment Directive (EU) 2015/863

| Component | Test Results (%) | | | |
|---|---|---|---|---|
| | DIBP | DEHP | BBP | DBP |
| | Limit (%) | | | |
| | 0.1% | 0.1% | 0.1% | 0.1% |
| 1+2 | ND | ND | ND | ND |
| 3 | ND | ND | ND | ND |
| 4+5+6 | ND | ND | ND | ND |
| 7+8+9 | ND | ND | ND | ND |
| 10+11 | ND | ND | ND | ND |

**Note**:
ND = Not Detected (＜0.005%)
0.1% equals to 1000 mg/kg

According to client's request, tests are combination tests. The experimental results are the total result of mixed samples.

***END OF THE REPORT***