

# TEST REPORT

<b><u>APPLICANT</u></b>	: Xindao B.V.
<b><u>ADDRESS</u></b>	: P.O. Box 3082, 2280 GB, Rijswijk, The Netherlands
<b><u>SAMPLE DESCRIPTION</u></b>	: Glass bottle with textured PU sleeve
<b><u>ITEM NO.</u></b>	: P436.29
<b><u>COUNTRY OF ORIGIN</u></b>	: China
<b><u>COUNTRY OF DESTINATION</u></b>	: Europe
<b><u>SAMPLE RECEIVED DATE</u></b>	: 15-Oct-2019
<b><u>TURN AROUND TIME</u></b>	: 15-Oct-2019 to 04-Nov-2019
<b><u>CONCLUSION</u></b>	: When tested as specified, the submitted sample(s) comply with the permissible safety limit of test item(s) as specified in LFGB, Section 30 and 31, Commission Regulation (EU) No 10/2011 and its amendments.

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

TEST REQUESTED	RESULT
Overall Migration	Pass
Specific Migration of Heavy Metal	Pass
Specific Migration of Bisphenol-A(BPA)	Pass
Peroxide Value	Pass
Volatile Organic Matter	Pass
Extractable Component	Pass
Leachable Lead and Cadmium content	Pass
Leachable Cobalt Content	Pass

*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. 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.*

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

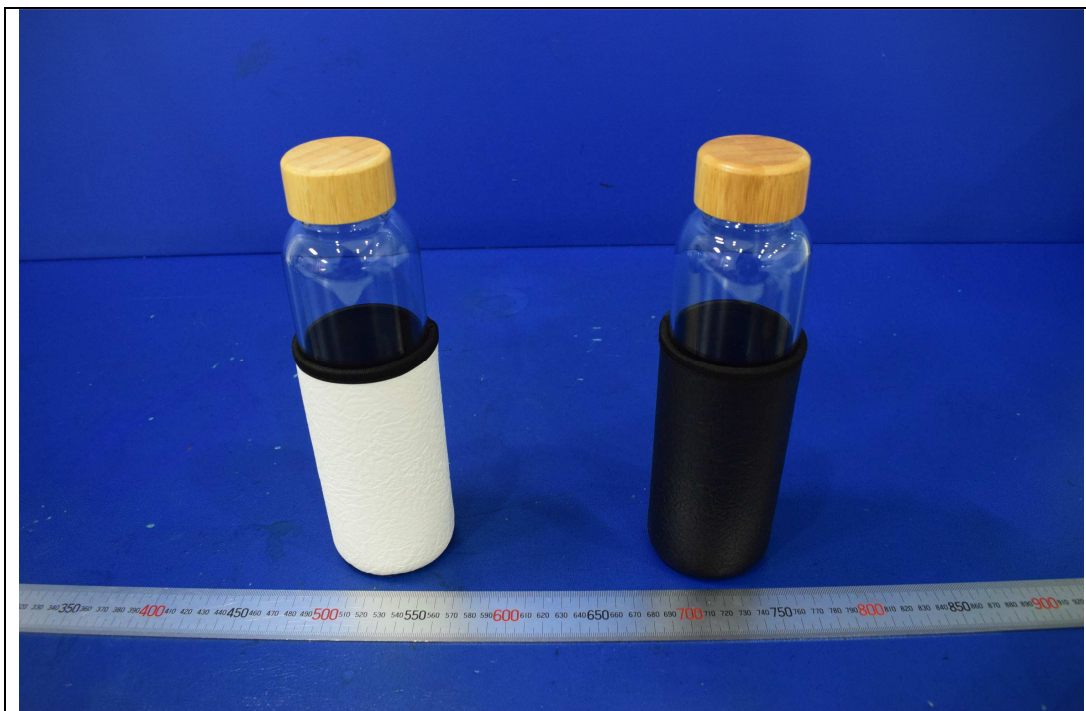
Signed for and on behalf of  
Eurofins Product Testing Service (Shanghai) Co., Ltd



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Lemon Zhang  
Assistant Chemical Lab Manager

**SAMPLE PHOTO(S)**



**A**

**EFSH19100564-CG-03**

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

**COMPONENT LIST**

Component No.	Component	Sample No.
1	Beige PP lid	A
2	Transparent silicone ring	A
3	Transparent glass body	A

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

## **TEST RESULT**

### **Overall Migration**

Test Requested : In accordance with Commission Regulation (EU) No. 10/2011 and its amendments, German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31, and BfR recommendation.

Test Method : By reference to EU 10/2011 for selection of test condition;  
With reference to EN1186-1:2002 for test methods;  
or EN1186-3:2002 aqueous food simulants by total immersion method;  
or EN1186-9:2002 aqueous food simulants by article filling method;  
or EN1186-2:2002 olive oil by total immersion method;  
or EN1186-8:2002 olive oil by article filling method;  
or EN1186-14:2002 substitute test

Simulant used	Time	Temperature	Max. Permissible Limit (mg/dm <sup>2</sup> )	Result (mg/dm <sup>2</sup> )
				1
3% Acetic Acid (W/V) Aqueous Solution	2hrs	100°C	10	<3.0
50% Ethanol (V/V) Aqueous Solution (Rectified Olive Oil Substitute)	2hrs	100°C	10	<3.0

### **Remark:**

- (1) mg/kg = milligram per kilogram
- (2) mg/dm<sup>2</sup> = milligram per square decimeter
- (3) Analytical tolerance of aqueous simulants is 6mg/kg or 1mg/dm<sup>2</sup>
- (4) Analytical tolerance of fatty food simulants is 20mg/kg or 3mg/dm<sup>2</sup>
- (5) Test condition & simulant were specified by client.

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

## **TEST RESULT**

### **Specific Migration of Heavy Metal**

Test Requested : To determine the Specific Migration of Heavy Metal for compliance with Commission Regulation (EU) No. 10/2011 and its amendments, German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31, and BfR recommendation.

Test Method : With reference to Regulation (EU) 10/2011 for selection of test condition and EN 13130-1:2004 for test preparation method; analysis was performed by ICP-OES.

Simulant used : 3% Acetic Acid (W/V) Aqueous Solution

Test condition : 100°C 2hours

Test Item(s)	Max. Permissible limit	Unit	MDL	Test Result
				1
Barium	1	mg/kg	0.25	ND
Cobalt	0.05	mg/kg	0.05	ND
Copper	5	mg/kg	0.25	ND
Iron	48	mg/kg	0.25	ND
Lithium	0.6	mg/kg	0.5	ND
Manganese	0.6	mg/kg	0.05	ND
Zinc	5	mg/kg	0.5	ND
Aluminium	1	mg/kg	0.1	ND
Nickel	0.02	mg/kg	0.01	ND

### **Remark:**

- (1) mg/kg = milligram per kilogram
- (2) ND = not detected, less than MDL
- (3) MDL = method detection limit
- (4) Test condition & simulant were specified by client.

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

## **TEST RESULT**

### **Specific Migration of Bisphenol-A(BPA)**

Test Requested : In accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31, and BfR recommendation, Commission Regulation (EU) No. 10/2011 and its amendments.

Test Method : With reference to Regulation (EU) 10/2011 for selection of test condition and EN 13130-1:2004 for test preparation method; analysis was performed by HPLC-MS

Simulant used: 3% Acetic Acid

Test condition: 100°C 2hours

Test Item(s)	Limit	Unit	MDL	Result
				1
Specific migration of 2,2-bis(4-hydroxyphenyl) propane (Bisphenol A)	0.05	mg/kg	0.01	ND

**Remark:**

- (1) mg/kg =milligram per kilogram
- (2) MDL = method detection limit
- (3) ND = not detected (<MDL)
- (4) Test condition & simulant were specified by client.

### **Peroxide Value**

Test Requested : In accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31, BfR recommendation.

Test Method : With reference to European Pharmacopoeia 8.0 part 2.5.5. Peroxide Value method A.

Test Item(s)	Limit	Test Result
		2
Peroxide Value	Absent	Absent

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

## **TEST RESULT**

### **Volatile Organic Matter**

Test Requested : In accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31, BfR recommendation.

Test Method : With reference to 61st Communication on testing of silicon in Bundesgesundheitsblatt, Gesundheitsforschung, Gesundheitsschutz 46 (2003) 362.

Test Condition : 100°C, 2 hours

Test Item(s)	Limit	Unit	MDL	Test Result
				2
Volatile Organic Matter	0.5	%(w/w)	0.1	0.39

**Remark:**

- (1) %w/w = percentage of weight by weight
- (2) MDL = method detection limit

### **Extractable Component**

Test Requested : In accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005 (LFGB), Section 30 and 31, BfR recommendation.

Test Method : With reference to 61st Communication on testing of plastics in Bundesgesundheitsbl 46 (2003) 362

Simulant Used	Time	Temperature	Max. Permissible Limit	Test Result
				2
3% Acetic Acid (W/V) Aqueous Solution	5.0hr	reflux temperature	0.5%(w/w)	<0.1%(w/w)
10% Ethanol	5.0hr	reflux temperature	0.5%(w/w)	<0.1%(w/w)

**Remark:**

%w/w =percentage of weight by weight

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



## TEST RESULT

### Leachable Lead and Cadmium Content

Test Requested : In accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005(LFGB), Section 30, 31 and DIN 51032:2017-07.  
For material: Glass/Ceramic/Glass ceramic- Leachable Lead and Cadmium Content

Test Method : With reference to EN 1388-1/2:1995 -Determination of release of Lead and Cadmium from ceramic ware or silicate surfaces.  
Analysis was performed by Inductively Coupled Plasma Optical Emission Spectrometer.

### Hollow-ware

	<b>Vol. of 4% Acetic acid used (ml)</b>	<b>Depth(mm)</b>	<b>Diameter (mm)</b>
	<b>3</b>	<b>3</b>	<b>3</b>
Specimen 1	600	230	60
Specimen 2	600	230	60
Specimen 3	600	230	60
Specimen 4	600	230	60

	<b>Leachable Lead (mg/l)</b>	<b>Leachable Cadmium (mg/l)</b>
	<b>3</b>	<b>3</b>
Specimen 1	<0.1	<0.01
Specimen 2	<0.1	<0.01
Specimen 3	<0.1	<0.01
Specimen 4	<0.1	<0.01
Limit(for glass)	4.0	0.3

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

## TEST RESULT

### Lip and Rim

	Vol. of 4% Acetic acid used (ml)	Depth(mm)	Diameter (mm)
	3	3	3
Specimen 1	100	230	60
Specimen 2	100	230	60
Specimen 3	100	230	60
Specimen 4	100	230	60

	Leachable Lead (mg/article)	Leachable Cadmium (mg/article)
	3	3
Specimen 1	<0.1	<0.01
Specimen 2	<0.1	<0.01
Specimen 3	<0.1	<0.01
Specimen 4	<0.1	<0.01
Limit(for glass)	2.0	0.2

### Note:

(1) < = Less than

(2) Permissible limit of Lead and Cadmium is quoted from DIN 51032:2017-07

Table 1--Permissible limits for articles made from ceramics, glass and glass ceramics

Items	Flatware		Hollow-ware	
	Lead mg/dm <sup>2</sup>	Cadmium mg/dm <sup>2</sup>	Lead mg/l	Cadmium mg/l
Tableware and kitchenware, Ceramic, Glass and Glass ceramic	0.8*)	0.07*)	4.0*)	0.3*)
Cooking & baking utensils, receptacles also used as packaging storage container	0.4	0.05	1.5*)	0.1*)

Remark: \*) In agreement with EC Directive.

(3) Requirement information quoted from DIN 51032:2017-07.

If measurements on an article give values exceeding those specified in "Note(2) Table 1", but by not more than 50%, the article concerned shall nevertheless be deemed to comply with the standard if at least three other articles identical to this one in material, shape, dimensions, decoration and glazing are tested ...with the result that the arithmetic mean of lead and cadmium release for these articles does not exceed the permissible limits and none of these articles exceeds the permissible limits by more than 50%.

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

## TEST RESULT

### Leachable Cobalt Content

Test Requested : In accordance with German Food, Articles of Daily Use and Feed Code of September 1, 2005(LFGB), Section 30, 31 and cobalt requirement on Lebensmittelchemie 3-2007 S. 58 –Kobaltlässigkeit.  
For material: Glass/Ceramic/ Enamel- Leachable Cobalt Content

Test Method : With reference to EN 1388-1/2:1995 –modified, determination of release of Cobalt from ceramic ware or silicate surfaces.  
Analysis was performed by Inductively Coupled Plasma Optical Emission Spectrometer.

### Hollow-ware

	<b>Vol. of 4% Acetic acid used (ml)</b>	<b>Depth(mm)</b>	<b>Diameter (mm)</b>
	<b>3</b>	<b>3</b>	<b>3</b>
Specimen 1	600	230	60
Specimen 2	600	230	60
Specimen 3	600	230	60
Specimen 4	600	230	60

	<b>Leachable Cobalt (mg/l)</b>
	<b>3</b>
Specimen 1	<0.01
Specimen 2	<0.01
Specimen 3	<0.01
Specimen 4	<0.01
Limit(for glass)	0.01

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

## TEST RESULT

### Lip and Rim

	Vol. of 4% Acetic acid used (ml)	Depth(mm)	Diameter (mm)
	3	3	3
Specimen 1	100	230	60
Specimen 2	100	230	60
Specimen 3	100	230	60
Specimen 4	100	230	60

	Leachable Cobalt (mg/article)
	3
Specimen 1	<0.01
Specimen 2	<0.01
Specimen 3	<0.01
Specimen 4	<0.01
Limit(for glass)	0.05

#### Note:

(1) < = Less than

(2) Requirement information:

Category same as Council Directive 84/500/EEC.

If measurements on an article give values exceeding those specified required limits, but by not more than 50%, the article concerned shall nevertheless be deemed to comply with the standard if at least three other articles identical to this one in material, shape, dimensions, decoration and glazing are tested ...with the result that the arithmetic mean of lead and cadmium release for these articles does not exceed the permissible limits and none of these articles exceeds the permissible limits by more than 50%.

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