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# Test Report

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Report No. : AGC05443240625-001

**SAMPLE NAME** : Double wall borosilicate mug  
**MODEL NAME** : CX1523, CX1524  
**APPLICANT** : MID OCEAN BRANDS B.V  
**STANDARD(S)** : Please refer to the following page(s).  
**DATE OF ISSUE** : Aug. 05, 2024

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Report No.: AGC05443240625-001

Applicant : MID OCEAN BRANDS B.V  
Address : 7/F, Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong.  
Test Site : 5, 6/F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China

**Report on the submitted sample(s) said to be:**

Sample Name : Double wall borosilicate mug  
Model : CX1523, CX1524  
Vendor code : 111025  
Country of Origin : CHINA  
Country of Destination : EUROPE  
Sample receiving state : Normal  
Sample Received Date : Jun. 20, 2024  
Testing Period : Jun. 20, 2024 to Aug. 05, 2024  
Test Requested : Selected test(s) as requested by client.

Approved by: *Leon*

Suhongliang, Leon

Technical Director

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**Test Requested:**

**Conclusion**

Annex XVII of the REACH Regulation (EC) No 1907/2006, entry 63 - Lead(Pb) Content	Pass
Annex XVII of the REACH Regulation (EC) No 1907/2006, entry 23 -Cadmium(Cd) Content	Pass
Annex XVII of the REACH Regulation (EC) No 1907/2006, entry 51&52 - Phthalates Content	Pass
Annex XVII of the REACH Regulation (EC) No 1907/2006, entry 50 - Polycyclic-aromatic Hydrocarbons (PAHs) Content	Pass
Microwave heating resistance test	Pass
Mechanical dishwashing safe test	Pass
Regulation 1935/2004/EC, Regulation(EU) No.10/2011 and Council of Europe Resolution AP (2004) 2 - Specific migration of Formaldehyde - Pentachlorophenol (PCP) content	Pass Pass
Regulation 1935/2004/EC, Regulation(EU) No 10/2011 and Council of Europe Resolution AP (2004)5 - Overall migration - Specific migration of Bisphenol A(BPA) - Bisphenol A(BPA) content	Pass Pass Pass
DM-4B-COM-003-v01 -Volatile Organic Matter - Peroxide value - Specific Migration of Organotin (measured as Tin)	Pass Pass Pass
Regulation 1935/2004/EC, Council Directive 84/500/EEC and Commission Directive 2005/31/EC - Leachable Lead and Cadmium	Pass

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## Report Revise Record

Report Version	Issued Date	Valid Version	Notes
/	Aug. 05, 2024	Valid	Initial release

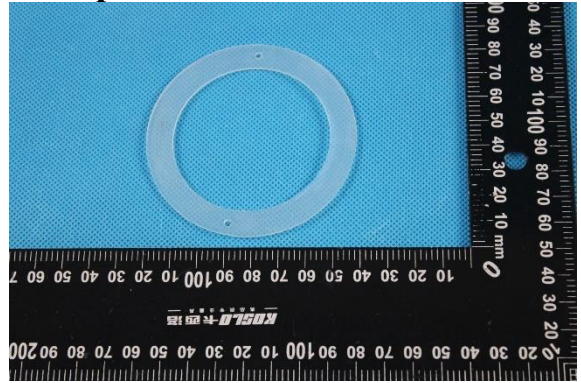
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The photo of the sample



The photo of AGC05443240625-001 is for use only with the original report.

Test Point Description

Test point	Test point description
1-1	Bamboo lid
1-2	Silicone sealing
1-3	Glass mug (CX1523)

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**Test Results:**

Note: N.D.=Not Detected (less than method detection limit), MDL = Method Detection Limit, 1mg/kg=0.0001%  
 Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019/CNAS-GL015:2022.

**Annex XVII of the REACH Regulation (EC) No 1907/2006, entry 63**
**- Lead(Pb) Content**

Test Methods and Equipment: IEC 62321-5:2013; ICP-OES

Test Item(s)	Unit	Limit	MDL	Test Result(s)	
				1-1	1-2
Lead(Pb)	mg/kg	500	10	N.D.	N.D.
Conclusion				Conformity	Conformity

Remark: The samples of the following test points were resubmitted on July 30, 2024:1-2

**Annex XVII of the REACH Regulation (EC) No 1907/2006, entry 23**
**-Cadmium(Cd) Content**

Test Methods and Equipment: IEC 62321-5:2013; ICP-OES

Test Item(s)	Unit	Limit	MDL	Test Result(s)
				1-2
Cadmium(Cd)	mg/kg	100	10	N.D.
Conclusion				Conformity

Remark: The samples of the following test points were resubmitted on July 30, 2024:1-2

**Annex XVII of the REACH Regulation (EC) No 1907/2006, entry 51&52**
**- Phthalates Content**

Test Methods and Equipment: IEC 62321-8:2017; GC-MS

Test Item(s)	Unit	Limit	MDL	Test Result(s)
				1-2
Diisobutyl phthalate (DIBP) CAS:84-69-5	%	0.1	0.005	N.D.
Dibutyl phthalate (DBP) CAS:84-74-2	%	0.1	0.005	N.D.
Butylbenzyl phthalate (BBP) CAS:85-68-7	%	0.1	0.005	N.D.
Di-(2-ethylhexyl) Phthalate (DEHP) CAS:117-81-7	%	0.1	0.005	N.D.
Di-n-octyl phthalate (DNOP) CAS:117-84-0	%	/	0.005	N.D.
Di-isononyl phthalate (DINP) CAS:28553-12-0, 68515-48-0	%	/	0.005	N.D.

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Test Item(s)	Unit	Limit	MDL	Test Result(s)
				1-2
Di-isodecyl phthalate(DIDP) CAS:26761-40-0, 68515-49-1	%	/	0.005	N.D.
Sum of DIBP +DBP+BBP+DEHP	%	0.1	/	N.D.
Sum of DNOP+DINP+DIDP	%	0.1	/	N.D.
Conclusion				Conformity

Remark: The samples of the following test points were resubmitted on July 30, 2024:1-2

Limit requirements of Phthalates

Toys and childcare articles	Each of DEHP, DBP, BBP, DIBP is less than 0.1% or the sum of DEHP+DBP+BBP+DIBP is less than 0.1%
Toys and childcare articles which can be placed in the mouth by children	The sum of DINP+DIDP+DNOP is less than 0.1%

**Annex XVII of the REACH Regulation (EC) No 1907/2006, entry 50**

**- Polycyclic-aromatic Hydrocarbons (PAHs) Content**

Test Methods and Equipment: Afps GS 2019:01 PAK; GC-MS

Test Item(s)	Unit	Limit	MDL	Test Result(s)
				1-2
Benzo[a]pyrene(BaP)	mg/kg	1	0.1	N.D.
Benzo[e]pyrene(BeP)	mg/kg	1	0.1	N.D.
Benzo[a]anthracene(BaA)	mg/kg	1	0.1	N.D.
Benzo[b]fluoranthene(BbF)	mg/kg	1	0.1	N.D.
Benzo[j]fluoranthene(BjFA)	mg/kg	1	0.1	N.D.
Benzo[k]fluoranthene(BkF)	mg/kg	1	0.1	N.D.
Chrysene(CHR)	mg/kg	1	0.1	N.D.
Dibenzo[a,h]anthracene(DBA)	mg/kg	1	0.1	N.D.
Conclusion				Conformity

Remark: The samples of the following test points were resubmitted on July 30, 2024:1-2

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## Limit requirements of Polycyclic-aromatic Hydrocarbons (PAHs) (Unit: mg/kg)

Items	CAS No.	Extender oils or used for the production of tyres or parts of tyres	Any of their rubber or plastic components that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity	Toys, including activity toys, and childcare articles, any of their rubber or plastic components that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity
Benzo[a]pyrene(BaP)	50-32-8	≤ 1	≤ 1	≤ 0.5
Benzo[e]pyrene(BeP)	192-97-2	/	≤ 1	≤ 0.5
Benzo[a]anthracene(BaA)	56-55-3	/	≤ 1	≤ 0.5
Benzo[b]fluoranthene(BbF)	205-99-2	/	≤ 1	≤ 0.5
Benzo[j]fluoranthene(BjFA)	205-82-3	/	≤ 1	≤ 0.5
Benzo[k]fluoranthene(BkF)	207-08-9	/	≤ 1	≤ 0.5
Chrysene(CHR)	218-01-9	/	≤ 1	≤ 0.5
Dibenzo[a,h]anthracene(DBA)	53-70-3	/	≤ 1	≤ 0.5
Sum of BaP+ BeP+ BaA+ BbF+ BjFA+ BkF+ CHR+ DBA	/	≤ 10	/	/

**- Microwave heating resistance test**
**Test Result of microwave test**

Sample No.:CX1523, CX1524  
 Test method: BS EN 15284 :007  
 Microwave power out: 800 W  
 Short period: 90 s  
 Long period: 585 s  
 Number of tested sample: 2 pc(s)  
 Number of control sample: 1 pc(s)

Specimen(s)	Maximum handle temperature after short period of heating	Maximum surface temperature after long period of heating
1	26.7°C	50.3°C
2	25.4°C	47.5°C

For all tested glass, glass-ceramic articles:

No visible change of color was found on the tested samples after test.

No visible cracking, crazing, scaling was found on the tested samples after test.

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**- Mechanical dishwashing safe test**

<b>Test Result of mechanical dishwashing safe test:</b>
Requirements: For dishwasher safe test, if there is no noticeable change in appearance (e.g. color, size and shape) and function, it should be "PASS"
Sample No.:CX1523, CX1524 Test method: Refer BS EN 12875 -1-2005 Washing temperature: 60°C Number of cycle: 10 cycles Number of tested sample: 2 pc(s). Number of control sample: 1 pc(s).
For all tested plastic or metal articles: No visible change of color, gloss and clouding was found on the tested samples after wash. No visible deposit or iridescent layer was found on the tested samples after wash. No visible swelling, deformation, cracking, crazing or delamination was found on the tested samples after wash.
For all tested glass articles: No visible change of color and gloss was found on the tested samples after wash. No visible deposit or iridescent layer was found on the tested samples after wash. No cloud texture was found on the tested samples after wash. No decoration was detached after wash.

**-Specific migration of Formaldehyde**

Test point	Test Result	Conclusion
	Specific migration of Formaldehyde/ (mg/kg)	
	3% Acetic acid,70°C, 2h	
1-1	N.D.	Conformity
Limit	15	/
MDL	5	/

**-Pentachlorophenol (PCP) content**

Test Item	Pentachlorophenol (PCP)
Limit (mg/kg)	0.15
MDL(mg/kg)	0.05
Test Method/ Instrument	EN ISO 15320-2011/ GC-MS

Test point	Test Result (mg/kg)	Conclusion
	Pentachlorophenol (PCP)	
1-1	N.D.	Conformity

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**-Overall migration**

Test point	Test result		Conclusion
	Overall migration/ (mg/dm <sup>2</sup> )		
	3% Acetic acid, 70°C,2h	50% Ethanol, 70°C,2h	
1-2	N.D.	N.D.	<b>Conformity</b>
<b>Limit</b>	10	10	/
<b>MDL</b>	5	5	/

Remark: The samples of the following test points were resubmitted on July 30, 2024:1-2

**-Specific migration of Bisphenol A(BPA)**

Test point	Test Result		Conclusion
	Specific migration of Bisphenol A(BPA)/ (mg/kg)		
	3% Acetic acid,70°C,2h		
1-2	N.D.		<b>Conformity</b>
<b>Client's limit</b>	0.05		/
<b>MDL</b>	0.02		/

Remark: The samples of the following test points were resubmitted on July 30, 2024:1-2

**-Bisphenol A(BPA) content**

<b>Test Item</b>	Bisphenol A (BPA)
<b>Client's limit (mg/kg)</b>	Absent
<b>MDL(mg/kg)</b>	0.1
<b>Test Method/ Instrument</b>	EPA 3540C:1996& EPA 8321B:2007/ LC-MS-MS

Test point	Test Result (mg/kg)	Conclusion
	Bisphenol A (BPA)	
1-2	N.D.	<b>Conformity</b>

Remark: The samples of the following test points were resubmitted on July 30, 2024:1-2

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Unit: %

Test item(s)	Test Condition	MDL	Result(s)	Limit
			1-2	
Volatile Organic Matter	200°C, 4h	0.1	0.41	0.5
<b>Conclusion</b>		/	<b>Conformity</b>	/

Remark: The samples of the following test points were resubmitted on July 30, 2024:1-2

- Peroxide value

Unit: %

Test Item	MDL	Result(s)	Limit
		1-2	
Peroxide value	0.2	N.D.	Absent
<b>Conclusion</b>	/	<b>Conformity</b>	/

Remark: The samples of the following test points were resubmitted on July 30, 2024:1-2

- Specific Migration of Organotin (measured as Tin)

Test point	Test Result		Conclusion
	Specific Migration of Organotin (measured as Tin)/ (mg/kg)		
	3% Acetic acid, 70°C,2h		
1-2	N.D.		<b>Conformity</b>
<b>Limit</b>	0.1		/
<b>MDL</b>	0.01		/

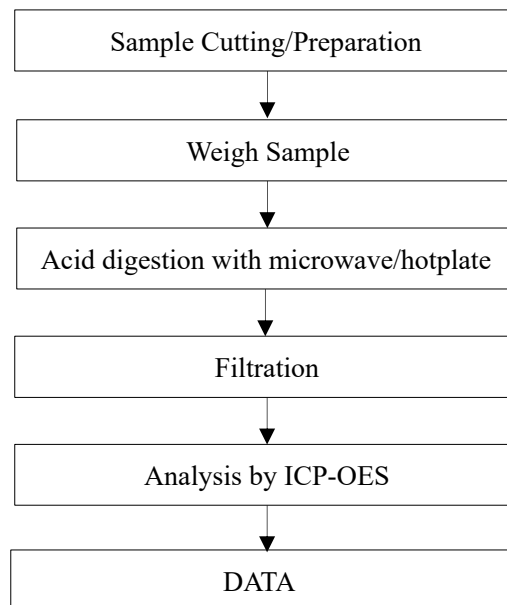
Remark: The samples of the following test points were resubmitted on July 30, 2024:1-2

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**- Leachable Lead and Cadmium**

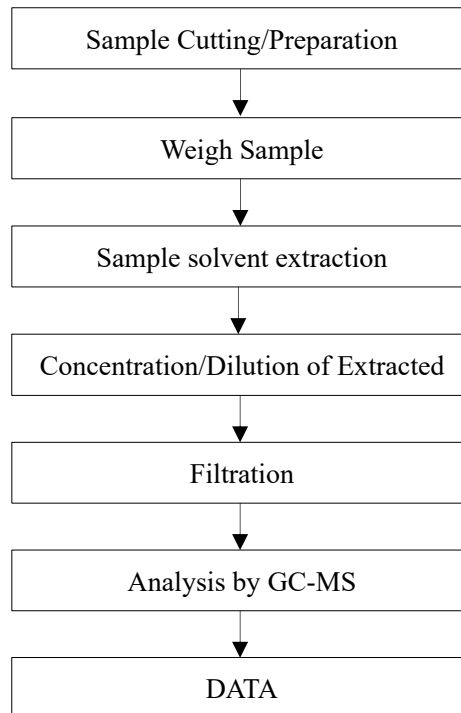
Test point		Test Result		Conclusion
		Leachable Lead(Pb)/ (mg/L)	Leachable Cadmium(Cd)/ ( mg/L)	
		4% Acetic acid, 22°C,24h	4% Acetic acid, 22°C,24h	
1-3	A	N.D.	N.D.	Conformity
	B	N.D.	N.D.	
	C	N.D.	N.D.	
	D	N.D.	N.D.	
<b>Limit</b>		4.0	0.3	/
<b>MDL</b>		0.1	0.01	/

**Note:** Results shown above are testing data of four groups.

**Test Flow Chart of Heavy Metal Content**


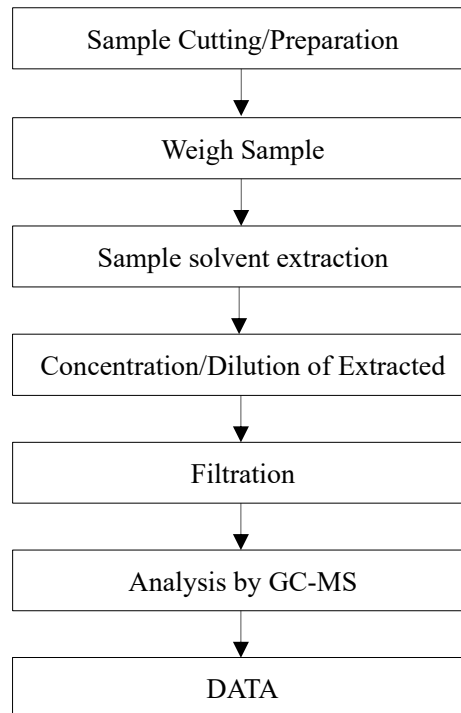
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### Test Flow Chart of Phthalates



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### Test Flow Chart of Polycyclic-aromatic Hydrocarbons (PAHs)



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## Conditions of Issuance of Test Reports

1. All samples and goods are accepted by the Attestation of Global Compliance (Shenzhen) Std & Tech Co., Ltd. (the “Company”) solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the company and any person, firm or company requesting its services (the “Clients”).
2. Any report issued by Company as a result of this application for testing services (the “Report”) shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to its customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.
3. The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.
4. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.
5. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.
6. The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.
7. Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
8. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.
9. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.

\*\*\* End of Report \*\*\*

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