



TEST REPORT

Report No...... : WTF22F11236864A1F
Applicant..... : Mid Ocean Brands B.V.
Address..... : 7/F., Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong
Manufacturer..... : 114276
Sample Name..... : Cork base double wall S/S mug
Sample Model..... : MO6533
Test Requested..... : 1. In accordance with Regulation (EU) No 10/2011 with amendments, Council of Europe Resolution AP(2004)5 and Regulation (EC) No 1935/2004.
2 . In accordance with French Décret n°2007-766 with amendments and Regulation (EC) No 1935/2004.
Test Conclusion..... : **Pass** (Please refer to next pages for details)
Date of Receipt sample..... : 2022-11-24 & 2022-12-13
Testing period..... : 2022-11-24 to 2022-12-05 & 2022-12-13 to 2022-12-16
Date of Issue..... : 2022-12-20
Test Result..... : Refer to next page (s)
Note..... : Selected test(s) as requested by applicant

Prepared By:

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Signed for and on behalf of
Waltek Testing Group (Foshan) Co., Ltd.

Jessise Liu

Jessise.Liu



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Test Results:

1. Overall Migration Test

Food Simulant	Test Condition	Result (mg/dm ²)			LOQ (mg/dm ²)	Limit (mg/dm ²)
		No.1				
		1 st Migration	2 nd Migration	3 rd Migration		
3% Acetic Acid	70°C for 2 hours	ND	ND	ND	3	10
10% Ethanol	70°C for 2 hours	ND	ND	ND	3	10

Note:

1. Test method: With reference to BS EN 1186-1: 2002, BS EN 1186-3: 2002, BS EN 1186-9: 2002 and BS EN 1186-14: 2002.
2. "mg/dm²" = milligram per square decimetre
3. "°C" = Celsius degree
4. LOQ = Limit of quantitation
5. ND = Not Detected or lower than limit of quantitation
6. The specification was quoted from (EU) No 10/2011 and its amendments (EU) 2016/1416, (EU) 2017/752, (EU)2019/37 and (EU) 2020/1245.

Food Simulant	Test Condition	Result (mg/kg)	LOQ (mg/kg)	Limit (mg/kg)
		No.2		
3% Acetic Acid	70°C for 2 hours	ND	20	60
10% Ethanol	70°C for 2 hours	ND	20	60

Note:

1. Test method: With reference to BS EN 1186-1: 2002, BS EN 1186-3: 2002, BS EN 1186-9: 2002 and BS EN 1186-14: 2002.
2. "mg/kg" = milligram per kilogram of foodstuff in contact with
3. "°C" = Celsius degree
4. LOQ = Limit of quantitation
5. ND = Not Detected or lower than limit of quantitation
6. The specification was quoted from Council of Europe Resolution AP (2004)5.



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2. Specific Migration of heavy metal

Test Items	Result(mg/kg)			LOQ (mg/kg)	Limit (mg/kg)
	No.1				
	1 st Migration	2 nd Migration	3 rd Migration		
Specific migration of Nickel	ND	ND	ND	0.01	0.02
Specific migration of Aluminium	ND	ND	ND	0.1	1
Specific migration of Barium	ND	ND	ND	0.1	1
Specific migration of Cobalt	ND	ND	ND	0.01	0.05
Specific migration of Copper	ND	ND	ND	0.1	5
Specific migration of Iron	ND	ND	ND	0.1	48
Specific migration of Lithium	ND	ND	ND	0.01	0.6
Specific migration of Manganese	ND	ND	ND	0.01	0.6
Specific migration of Zinc	ND	ND	ND	0.1	5
Specific migration of Antimony	ND	ND	ND	0.01	0.04
Specific migration of Arsenic	ND	ND	ND	0.01	Not detected (<0.01)
Specific migration of Cadmium	ND	ND	ND	0.002	Not detected (<0.002)
Specific migration of Chromium	ND	ND	ND	0.01	Not detected (<0.01)
Specific migration of Mercury	ND	ND	ND	0.01	Not detected (<0.01)
Specific migration of Lead	ND	ND	ND	0.01	Not detected (<0.01)
Specific migration of Europium	ND	ND	ND	0.02	Sum<0.05
Specific migration of Gadolinium	ND	ND	ND	0.02	
Specific migration of Lanthanum	ND	ND	ND	0.02	
Specific migration of Terbium	ND	ND	ND	0.02	

Note:

1. Test Method: With reference to BS EN 13130-1: 2004, sample preparation in 3% acetic acid at 70°C for 2 hours, analysis was performed by ICP-MS.
2. "mg/kg" = milligram per kilogram of foodstuff in contact with
3. LOQ = Limit of quantitation
4. ND = Not Detected or lower than limit of quantitation
5. The specification was quoted from (EU) No 10/2011 and its amendments (EU) 2016/1416, (EU) 2017/752 and (EU) 2020/1245.



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3. Specific Migration of Primary Aromatic Amines

Test Item	Result (mg/kg)	LOQ (mg/kg)	Limit (mg/kg)
	No.1		
Migration of Primary aromatic amines	ND	0.01	Not detected

Note:

1. Test Method: With reference to § 64 LFGB L No. 00.00-6, analysis was performed by UV-visible Spectrometer.
2. Test Condition and simulant: 3% acetic acid at 70°C for 2 hours.
3. "mg/kg" = milligram per kilogram of foodstuff in contact with
4. LOQ = Limit of quantitation
5. ND = Not Detected or lower than limit of quantitation
6. The specification was quoted from (EU) No 10/2011 and its amendments (EU) 2016/1416, (EU) 2017/752 and (EU) 2020/1245.

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4. Specific Migration of Primary Aromatic Amines (single substance)*

Test Items	CAS No.	Result(mg/kg)			LOQ (mg/kg)	Limit (mg/kg)
		No.1				
		1 st Migration	2 nd Migration	3 rd Migration		
2-methoxyaniline	90-04-0	ND	ND	ND	0.002	ND
4,4'-Diaminobiphenyl	92-87-5	ND	ND	ND	0.002	ND
4,4'-Methylen-bis-(2-chloroaniline)	101-14-4	ND	ND	ND	0.002	ND
4,4'-Diaminodiphenylmethane	101-77-9	ND	ND	ND	0.002	ND
4,4'-Oxydianiline	101-80-4	ND	ND	ND	0.002	ND
4-chloroaniline	106-47-8	ND	ND	ND	0.002	ND
3,3'-Dimethoxybenzidine	119-90-4	ND	ND	ND	0.002	ND
3,3'-Dimethylbenzidine	119-93-7	ND	ND	ND	0.002	ND
2-Methoxy-5-methylaniline	120-71-8	ND	ND	ND	0.002	ND
2,4,5 – Trimethylaniline	137-17-7	ND	ND	ND	0.002	ND
4,4'-Thiodianiline	139-65-1	ND	ND	ND	0.002	ND
4-aminoazobenzene	60-09-3	ND	ND	ND	0.002	ND
2,4-diaminoanisol	615-05-4	ND	ND	ND	0.002	ND
4,4'-diamino-3,3'-dimethyldiphenylmethane	838-88-0	ND	ND	ND	0.002	ND
2-Naphthylamine	91-59-8	ND	ND	ND	0.002	ND
3,3'-Dichlorobenzidine	91-94-1	ND	ND	ND	0.002	ND
4-Aminobiphenyl	92-67-1	ND	ND	ND	0.002	ND
2-methylaniline	95-53-4	ND	ND	ND	0.002	ND
4-chloro-o-Toluidine	95-69-2	ND	ND	ND	0.002	ND
2,4-Toluyldiamine	95-80-7	ND	ND	ND	0.002	ND
2,4-Aminoazotoluene	97-56-3	ND	ND	ND	0.002	ND
2-Amino-4-nitrotoluene	99-55-8	ND	ND	ND	0.002	ND
2,4-Xylidin	95-68-1	ND	ND	ND	0.002	ND
2,6-Xylidin	87-62-7	ND	ND	ND	0.002	ND
1, 3 - phenylene diamine	108-45-2	ND	ND	ND	0.002	ND

Note:

1. Test Method: With reference to EN 13130-1:2004, analysis was performed by LC-MS-MS.
2. Test Condition and simulant: 3% acetic acid at 70°C for 6 hours.
3. "mg/kg" = milligram per kilogram of foodstuff in contact with
4. LOQ = Limit of quantitation
5. ND = Not Detected or lower than limit of quantitation
6. The specification was quoted from (EU) No 10/2011 and its amendments (EU) 2016/1416, (EU) 2017/752 and (EU) 2020/1245.
7. The testing item marked with '*' does not been accredited by CNAS.

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5. Bisphenol A Content*

Test Item	Result (mg/kg)		LOQ (mg/kg)	Limit (mg/kg)
	No.1	No.2		
Bisphenol A	ND	ND	0.1	Not Detected

Note:

1. Test Method: With reference to EPA3550C:2007, analysis was performed by LC-MS-MS.
2. "mg/kg" = milligram per kilogram
3. LOQ = Limit of quantitation
4. ND = Not Detected or lower than limit of quantitation
5. The specification was quoted from Law No 2012-1442.
6. The testing item marked with '*' does not been accredited by CNAS.

6. Peroxide Value Test*

Test Item	Result	Limit
	No.2	
Peroxide Value	Absent	Absent

Note:

1. Test method: With reference to French pharmacopoeia Xth edition.
2. The specification was quoted from French Arrêté du 25 novembre 1992 for Silicone Elastomers.
3. The testing item marked with '*' does not been accredited by CNAS.

7. Specific Migration of Organotin (as Tin)

Food Simulant	Test Condition	Result (mg/kg)	LOQ (mg/kg)	Limit (mg/kg)
		No.2		
3% acetic acid	70°C for 2 hours	ND	0.01	0.1

Note:

1. Test Method: With reference to BS EN 13130-1: 2004, analysis was performed by ICP-MS.
2. "mg/kg" = milligram per kilogram
3. LOQ = Limit of quantitation
4. ND = Not Detected, less than LOQ
5. The specification was quoted from French Arrêté du 25 novembre 1992 for Silicone Elastomers.



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8. Council of Europe Resolution CM/Res(2013)9-Specific Migration of Heavy Metal

Test Items	1st+2nd Migration (mg/kg)	LOQ (mg/kg)	Limit (mg/kg)
	No.3		
Aluminium (Al)	ND	0.2	35
Antimony (Sb)	ND	0.02	0.28
Chromium (Cr)	0.04	0.04	1.75
Cobalt (Co)	ND	0.02	0.14
Copper (Cu)	ND	0.2	28
Iron (Fe)	0.6	0.4	280
Manganese (Mn)	ND	0.2	12.6
Molybdenum (Mo)	ND	0.02	0.84
Nickel (Ni)	0.02	0.02	0.98
Silver (Ag)	ND	0.02	0.56
Tin (Sn)	ND	0.2	700
Vanadium (V)	ND	0.01	0.07
Zinc (Zn)	ND	0.2	35
Arsenic (As)	ND	0.002	0.014
Barium (Ba)	ND	0.2	8.4
Beryllium (Be)	ND	0.01	0.07
Cadmium (Cd)	ND	0.002	0.035
Lead (Pb)	ND	0.01	0.07
Lithium (Li)	ND	0.01	0.336
Mercury (Hg)	ND	0.002	0.021
Thallium (Tl)	ND	0.0002	0.0007
Magnesium (Mg)	ND	0.2	--
Titanium (Ti)	ND	0.02	--



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Test Items	3rd Migration (mg/kg)	LOQ (mg/kg)	Limit (mg/kg)
	No.3		
Aluminium (Al)	ND	0.1	5
Antimony (Sb)	ND	0.01	0.04
Chromium (Cr)	ND	0.02	0.25
Cobalt (Co)	ND	0.01	0.02
Copper (Cu)	ND	0.1	4
Iron (Fe)	ND	0.2	40
Manganese (Mn)	ND	0.1	1.8
Molybdenum (Mo)	ND	0.01	0.12
Nickel (Ni)	ND	0.01	0.14
Silver (Ag)	ND	0.01	0.08
Tin (Sn)	ND	0.1	100
Vanadium (V)	ND	0.005	0.01
Zinc (Zn)	ND	0.1	5
Arsenic (As)	ND	0.001	0.002
Barium (Ba)	ND	0.1	1.2
Beryllium (Be)	ND	0.005	0.01
Cadmium (Cd)	ND	0.001	0.005
Lead (Pb)	ND	0.005	0.01
Lithium (Li)	ND	0.005	0.048
Mercury (Hg)	ND	0.001	0.003
Thallium (Tl)	ND	0.0001	0.0001
Magnesium (Mg)	ND	0.1	--
Titanium (Ti)	ND	0.01	--

Note:

1. Test Method: With reference to BS EN 13130-1: 2004, analysis was performed by ICP-MS.
2. Test Condition and simulant: Sample(s) were migrated with 5g/L citric acid at 70°C for 2 hours.
3. "mg/kg" = milligram per kilogram of foodstuff in contact with
4. LOQ = Limit of quantitation
5. ND = Not Detected or lower than limit of quantitation
6. "--" = Not regulated
7. The specification was quoted from Technical Guide on Metals and alloys used in food contact materials of Council of Europe Resolution CM/Res(2013)9.



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9. Volatile Organic Compounds

Test Item	Test Condition	Result (%)	LOQ (%)	Limit (%)
		No.4		
Volatile Organic compounds	200°C for 4 hours	0.10	0.05	0.5

Note:

1. Test method: With reference to French Arrêté du 25 novembre 1992 Annex III for silicone Elastomers.
2. “%” = percentage by weight
3. LOQ = Limit of quantitation
4. The specification was quoted from French Arrêté du 25 novembre 1992 for Silicone Elastomers.

Sample Photo:





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Photograph of parts tested:

No.	Photo of testing part	Parts Description	Client Claimed Material
1		Transparent plastic	PS
2		Black silicone rubber	Silicone rubber (Sample received at 2022-11-24)
3		Silvery metal	Stainless steel
4		Black silicone rubber	Silicone rubber (Sample received at 2022-12-13)



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Remarks:

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===== End of Report =====

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