



中国认可  
国际互认  
检测  
TESTING  
CNAS L6478



# TEST REPORT

**Reference No.** ..... : WTF20F10073532A1F

**Applicant** ..... : Mid Ocean Brands B.V.

**Address** ..... : 7/F., Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong

**Manufacturer** ..... : 100396

**Sample Name** ..... : Aluminium bottles

**Model No** ..... : MO8287、YC8287, MO9805、YC9805,MO9350、YC9350

**Test Requested** ..... : In accordance with Regulation (EU) No 10/2011 with amendments, Council of Europe Resolution CM/Res(2013)9 and Regulation (EC) No 1935/2004.

**Test Conclusion** ..... : **Pass** (Please refer to next pages for details)

**Date of Receipt sample** .... : 2020-10-12 & 2020-11-11

**Date of Test** ..... : 2020-10-12 to 2020-11-18

**Date of Issue** ..... : 2020-11-19

**Test Result** ..... : Please refer to next page (s)

**Note** ..... : Selected test(s) as requested by applicant

**Remarks:**

The results shown in this test report refer only to the sample(s) tested; this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver. If the report is not stamped with the accreditation recognized seal, it will only be used for scientific research, education, and internal quality control activities, and is not used for the purpose of issuing supporting data to the society.

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**Test Results:****1. Overall Migration Test**

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

**Note:**

1. Test method: With reference to BS EN 1186-1: 2002 and BS EN 1186-3: 2002
2. "mg/dm<sup>2</sup>" = 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 and (EU) 2019/37.

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

**2. Specific Migration of heavy metal (Nickel, Aluminium, Barium, Cobalt, Copper, Iron, Lithium, Manganese, Zinc)**

Test Items	Result (mg/kg)	LOQ (mg/kg)	Limit (mg/kg)
	No.1		
Specific migration of Nickel	ND	0.01	0.02
Specific migration of Aluminium	ND	0.1	1
Specific migration of Barium	ND	0.1	1
Specific migration of Cobalt	ND	0.01	0.05
Specific migration of Copper	ND	0.1	5
Specific migration of Iron	ND	0.1	48
Specific migration of Lithium	ND	0.01	0.6
Specific migration of Manganese	ND	0.01	0.6
Specific migration of Zinc	ND	0.1	5

**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-OES.
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 and (EU) 2017/752.

**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 (<0.01mg/kg)

**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 and (EU) 2017/752.

**4. 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 (<0.1mg/kg)

**Note:**

1. Test Method: With reference to EPA3550C:2007, analysis was performed by GC-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.



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**5. 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	No.4		
Aluminium (Al)	0.2	ND	0.2	35
Antimony (Sb)	ND	ND	0.02	0.28
Chromium (Cr)	ND	ND	0.04	1.75
Cobalt (Co)	ND	ND	0.02	0.14
Copper (Cu)	ND	ND	0.2	28
Iron (Fe)	ND	ND	0.4	280
Manganese (Mn)	ND	ND	0.2	12.6
Molybdenum (Mo)	ND	ND	0.02	0.84
Nickel (Ni)	ND	ND	0.02	0.98
Silver (Ag)	ND	ND	0.02	0.56
Tin (Sn)	ND	ND	0.2	700
Vanadium (V)	ND	ND	0.01	0.07
Zinc (Zn)	ND	ND	0.2	35
Arsenic (As)	ND	ND	0.002	0.014
Barium (Ba)	ND	ND	0.2	8.4
Beryllium (Be)	ND	ND	0.01	0.07
Cadmium (Cd)	ND	ND	0.002	0.035
Lead (Pb)	ND	ND	0.01	0.07
Lithium (Li)	ND	ND	0.01	0.336
Mercury (Hg)	ND	ND	0.002	0.021
Thallium (Tl)	ND	ND	0.0002	0.0007
Magnesium (Mg)	ND	0.8	0.2	--
Titanium (Ti)	ND	ND	0.02	--



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

## Note:

1. Test Method: With reference to BS EN 13130-1: 2004, analysis was performed by ICP-OES and ICP-MS.
2. Test Condition and simulant: Sample(s) were migrated with artificial tap water 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.

**6. Composition Analysis for Aluminium\***

Test Items	Result (%)		LOQ (%)	Limit (%)
	No.3	No.5		
Iron (Fe)	0.23	0.16	0.01	Total 1.0
Silicone (Si) <sup>#</sup>	0.06	0.08	0.01	
Chromium (Cr)	ND	ND	0.01	0.10
Manganese (Mn)	0.01	ND	0.01	0.10
Magnesium (Mg)	0.01	0.01	0.01	0.10
Nickel (Ni)	ND	ND	0.01	0.10
Zinc (Zn)	0.02	ND	0.01	0.10
Titanium (Ti)	0.03	0.02	0.01	0.10
Tin (Sn)	ND	ND	0.01	0.10
Copper (Cu)	ND	ND	0.01	0.20
Antimony (Sb)	ND	ND	0.01	0.05
Strontium (Sr)	ND	ND	0.01	0.05
Zirconium (Zr)	ND	ND	0.01	0.05
Arsenic (As)	ND	ND	0.01	0.05
Tantalum (Ta)	ND	ND	0.01	0.05
Lead (Pb)	ND	ND	0.01	0.05
Thallium (Tl)	ND	ND	0.01	0.05
Beryllium (Be)	ND	ND	0.01	0.05

**Note:**

1. Test method: With reference to EN 14242: 2004, ISO 808:1973 and ISO 797:1973.
2. “%” = percentage by weight
3. LOQ = Limit of quantitation
4. ND = Not Detected or lower than limit of quantitation
5. The specification was quoted from EN 601: 2004.
6. The testing item marked with <sup>#</sup> is subcontracted items.
7. The testing item marked with \* does not been accredited by CNAS.



**Sample Photo:**

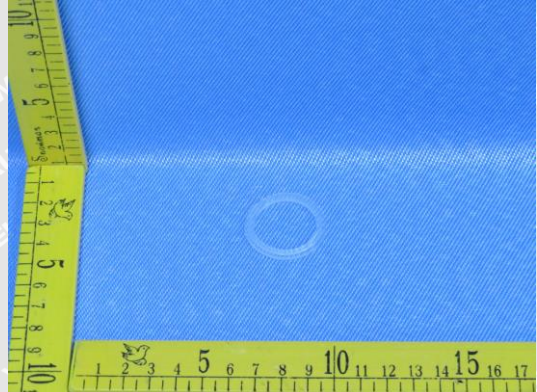
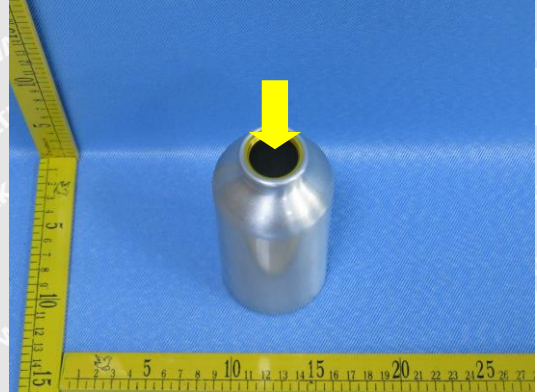
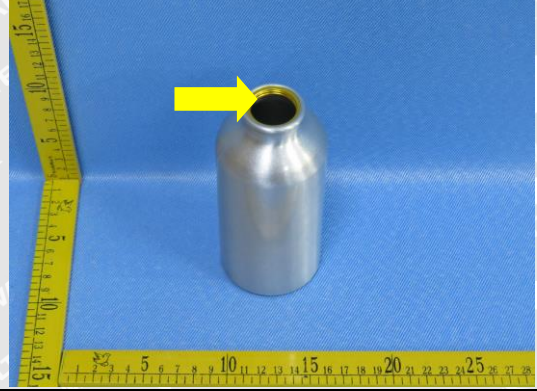
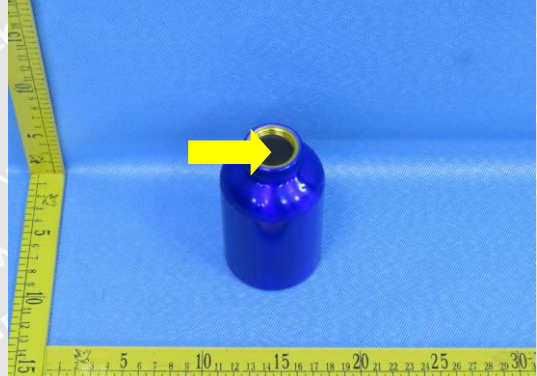


**Photograph of parts tested:**

No.	Photo of testing part	Parts Description	Client Claimed Material
1		Black plastic	PP





No.	Photo of testing part	Parts Description	Client Claimed Material
2		Transparent silicone rubber	Silicone rubber
3		Silvery metal	Aluminium
4		Golden metal	Aluminium
5		Golden metal	Aluminium

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