

# TEST REPORT

**Applicant** : PUBLIK DOO  
**Address** : Vladike Nikolaja 469, 14000 Valjevo, Serbia

## Report on the submitted sample said to be

**Sample name** : Thermoses  
**Model** : PLANET (41.149.XX), PALMA (41.151.XX), DROP (41.156.XX), VIVO (41.155.XX) where XX means color range, coded from 00-99  
**Manufacture** : Asia Gateway Overseas Limited  
**Address** : 21/F., New World Tower 1, 18 Queen's Road, Central, Hong Kong  
**Sample received date** : Dec. 28, 2022  
**Testing period** : Dec. 28, 2022 – Jan. 05, 2023  
**Test Result(s)** : Please refer to the next pages

# AP

Signed for and on behalf of

*Bert Yang*

Lab Manager : Bert Yang

Jan. 05, 2023

Date of issue





Test Sample	Test Requested:	Conclusion
001	COMMISSION REGULATION (EU) No.10/2011 and (EC) No 1935/2004 on metals and alloys used in food contact materials and articles. - Specific Release of Heavy Metals	Pass
002	In accordance with Council of Europe Resolution AP(2002)1 relating to wood intended to come into contact with foodstuffs. - Sensorial examination odour and taste test - Extractable Heavy Metals - Pentachlorophenol (PCP) Content - Preserving Effect - Fluorescent whitening agents - Specific migration of benzophenone - Specific migration of 4-methylbenzophenone - Extractable formaldehyde - Bisphenol A (BPA) Content	Pass
003	Commission Regulation (EU) No 10/2011 of 14 January 2011 with amendments - Overall migration - Specific migration of Heavy Metals	Pass

### Test Part Description

Specimen No.	Description
001	Stainless steel
002	Bamboo
003	silica gel

**Test Result:**

**Specific Release of Heavy Metals**

Method: Preparation in Artificial tap water / 0.5% Citric acid at xx°C for xx hours, analyzed by Inductively Coupled Plasma Atomic Emission Spectrometer (ICP-AES)/ Inductively Coupled Plasma Mass Spectrometer (ICP-MS).

Test Condition: 100°C 4Hour

Elements	SRL (mg/kg)		Result (mg/kg)		Conclusion
	1 <sup>st</sup> + 2 <sup>nd</sup>	3 <sup>rd</sup>	001		
			1 <sup>st</sup> + 2 <sup>nd</sup>	3 <sup>rd</sup>	
Tin(Sn)	700	100	N.D.	N.D.	Pass
Copper(Cu)	28	4	N.D.	N.D.	
Iron(Fe)	280	40	N.D.	N.D.	
Manganese(Mn)	12.6	1.8	N.D.	N.D.	
Zinc(Zn)	35	5	N.D.	N.D.	
Aluminum(Al)	35	5	N.D.	N.D.	
Barium(Ba)	8.4	1.2	N.D.	N.D.	
Titanium(Ti)	--	--	N.D.	N.D.	
Magnesium(Mg)	--	--	N.D.	N.D.	
Chromium(Cr)	1.750	0.250	N.D.	N.D.	
Nickel(Ni)	0.98	0.14	N.D.	N.D.	
Lithium(Li)	0.336	0.048	N.D.	N.D.	
Beryllium(Be)	0.07	0.01	N.D.	N.D.	
Vanadium(V)	0.07	0.01	N.D.	N.D.	
Cobalt(Co)	0.14	0.02	N.D.	N.D.	
Molybdenum(Mo)	0.84	0.12	N.D.	N.D.	
Silver(Ag)	0.56	0.08	N.D.	N.D.	
Antimony(Sb)	0.28	0.04	N.D.	N.D.	
Lead(Pb)	0.07	0.01	N.D.	N.D.	
Arsenic(As)	0.014	0.002	N.D.	N.D.	
Cadmium(Cd)	0.035	0.005	N.D.	N.D.	
Mercury(Hg)	0.021	0.003	N.D.	N.D.	
Thallium(Tl)	0.0007	0.0001	N.D.	N.D.	

**Note:**

1. "--" = No requirement.
2. mg/kg = milligrams of the constituents released per kilogram of foodstuff.
3. SRL = Specific Release Limit.

### **Sensorial examination odour and taste test**

Test Method: With reference to DIN 10955:2004

Test media: Deionized Water

Test Item(s)	Limit	Result	Conclusion
		002	
Sensorial examination odour (Point scale)	3	1	Pass
Sensorial examination taste (Point scale)	3	1	Pass

**Note:**

Scale evaluation:

- 0: No perceptible odour
- 1: Odour just perceptible (still difficult to define)
- 2: Moderate odour
- 3: Moderately strong odour
- 4: Strong odour

### **Extractable heavy metals**

Test Method: With reference to EN 645:1993 (cold water extraction), analysis was performed by UV-Vis and ICP-OES / ICP-MS.

Test Item	Result (mg/dm <sup>2</sup> )	MDL (mg/dm <sup>2</sup> )	Maximum Permissible Limit (mg/dm <sup>2</sup> )	Conclusion
	002			
Extractable Lead	N.D.	0.002	0.003	Pass
Extractable Cadmium	N.D.	0.002	0.002	Pass
Extractable Mercury	N.D.	0.002	0.002	Pass

**Note:**

- 1. mg/dm<sup>2</sup> = milligram per square decimeter
- 2. N.D. = Not Detected (< MDL)
- 3. MDL = Method Detection Limit

### **Pentachlorophenol (PCP)**

Test Method: With reference to LFGB § 64 BVL B 82.02.8 - 2001, analysis was performed by GC-MS.

Item	Unit	Result	MDL	Maximum Permissible Limit	Conclusion
		002			
PCP Content	mg/kg	N.D.	0.1	0.15	Pass

**Note:**

- 1. mg/kg = ppm

### Preserving effect

Test Method: With reference to EN 1104:2005.

Tested Fungus	Test result	Specification	Conclusion
	002		
Bacillus subtilis ATCC No. 6633	Absent	Absence of zone inhibition	Pass
Aspergillus niger ATCC No.6275	Absent	Absence of zone inhibition	Pass

#### **Note:**

1. Absent denotes absence of Antimicrobial constituents which inhibits the growth of tested bacteria and fungus

### Fastness of Fluorescent whitening agents

Test Method: As per BS EN 648:2006 procedure B (short time contact).

Item	Test result	Limit	Conclusion
	002		
Deionized Water	No staining	No staining (Grade 5)	Pass
Aqueous Acetic Acid 3.0% (m/v)	No staining	No staining (Grade 5)	Pass
Saliva Simulant 5g/L	No staining	No staining (Grade 5)	Pass
Rectified Olive Oil	No staining	No staining (Grade 5)	Pass

### Specific migration of benzophenone

Test Method: With reference to EN 13130-1:2004, analysis was performed by GC-MS. .

Item	Unit	Test result	MDL	Limit	Conclusion
		002			
Specific migration of benzophenone	mg/kg	N.D.	0.2	0.6.	Pass

### Specific migration of 4-methylbenzophenone

Test Method: With reference to EN 13130-1:2004, analysis was performed by GC-MS.

Item	Unit	Test result	MDL	Limit	Conclusion
		002			
Specific migration of 4-methylbenzophenone	mg/kg	N.D.	0.2	0.2	Pass

### Extractable formaldehyde

Test Method: With reference to EN 645:1994 (cold water extraction) and EN 1541:2001, analysis was performed by UV-Vis.

Item	Unit	Test result	MDL	Limit	Conclusion
		002			
Extractable formaldehyde	mg/dm <sup>2</sup>	N.D.	0.1	1	Pass

### Bisphenol A (BPA) Content

Method: Solvent extraction, analyzed by High Performance Liquid Chromatograph (HPLC-DAD)..

Test Condition: 100°C 4Hour

Unit	Result	Limit	Conclusion
	002		
mg/kg	N.D.	N.D.	Pass

**Note:**

1. mg/kg = milligrams of the constituents released per kilogram of foodstuff.
2. N.D. = Not Detected (< RL).
3. RL (Reporting Limit) = 0.1 mg/kg.
4. The requirement in accordance with the Commission Regulation (EU) No 321/2011.

### Overall migration

Method: With reference to EN1186-1:2002.

Test Condition: 100°C 4Hour

Test Item(s)	Limit. (mg/dm <sup>2</sup> ) (mg/kg)	Result	Conclusion
		003	
Distilled water	10/60	N.D.	Pass
10% Ethanol(v/v)	10/60	N.D.	Pass
3% Acetic acid(w/v)	10/60	N.D.	Pass
50% Ethanol(v/v)	10/60	N.D.	Pass
Vegetable oil	10/60	N.D.	Pass
Poly(2,6-diphenyl-p-phenylene oxide)	10/60	N.D.	Pass
95% Ethanol(v/v)	10/60	N.D.	Pass
Isooctane	10/60	N.D.	Pass

**Note:** 1. mg/dm<sup>2</sup> = milligram per square decimetre of surface area of material or article.

2. mg/kg = milligrams of the constituents released per kilogram of foodstuff.
3. The requirement in accordance with the Commission Regulation (EU) No 10/2011.
4. The requirement in accordance with the Resolution AP (2004)1.
5. The requirement in accordance with the Resolution AP (2004)4.
6. The requirement in accordance with the Resolution AP (2004)5.

### Specific migration of Heavy Metals

Simulant Used: 20% Ethanol (V/V) Aqueous Solution

Test Condition: 70.°C 0.5.hr(s).

Test Item(s)	Max. Permissible Limit	Unit	MDL	Result
				003
Migration times	-	-	-	3rd
Area/Volume	-	dm <sup>2</sup> /kg	-	6.0
Barium	1	mg/kg	0.25	N.D.
Cobalt	0.05	mg/kg	0.01	N.D.
Copper	5	mg/kg	0.25	N.D.
Iron	48	mg/kg	0.25	N.D.
Lithium	0.6	mg/kg	0.5	N.D.
Manganese	0.6	mg/kg	0.25	N.D.
Zinc	5	mg/kg	0.5	N.D.
Alumium	1	mg/kg	0.1	N.D.
Nickel	0.02	mg/kg	0.01	N.D.
Comment				Pass

**Note** : 1. mg/kg = milligram per kilogram of foodstuff in contact with

2. MDL=Method Detection Limit

3. N.D. = Not Detected(less than MDL)

4. The limits of nickel according to Commission Regulation (EU) 2017/752 shall be applied from 19 May 2019.

Picture of sample



Photo 1

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