

TEST REPORT

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

Report on the submitted sample said to be

Sample name : Lunch boxes
Model : SNACK (41.150.XX), SALMON (41.154.XX), FUNGHI (41.153.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

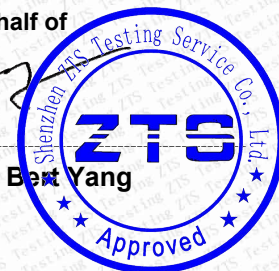
Signed for and on behalf of

Bert Yang

Lab Manager : Bert Yang

Jan. 05, 2023

Date of issue



Test Part Description

Specimen No.	Description
001	Stainless steel
002	Bamboo
003	Glass
004	Aluminium

Test Sample	Test Requested:	Conclusion
001 004	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	The European Council Directive 84/500/EEC and its amendment 2005/31/EC - Ceramic Articles intended to Come into Contact with Foodstuffs - migration Lead and Cadmium	Pass

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 st + 2 nd	3 rd	001 004		
			1 st + 2 nd	3 rd	
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 ²)	MDL (mg/dm ²)	Maximum Permissible Limit (mg/dm ²)	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/dm² = 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 ²	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.

migration Lead and Cadmium

Method: With reference to 84/500/EEC ANNEX II , analyzed by Atomic Absorption Spectrometer(AAS)/ Inductively Coupled Plasma Atomic Emission Spectrometer (ICP-AES).

Material No.	Description	Location	Depth(mm)
003	Lunch boxes	Glass	70

Material No.	Test Item	Limit (mg/L)	Result(mg/dm ²) (mg/L)				Conclusion
			1	2	3	4	
003	Lead(Pb)	4.0	<0.1	<0.1	<0.1	<0.1	PASS
	Cadmium(Cd)	0.3	<0.01	<0.01	<0.01	<0.01	

Note:

1. Volume of 4% Acetic acid used 370 mL.
2. mg/L = milligram per liter.
3. Permissible limits for articles.
4. mg/dm2 = milligram per square decimetre of surface area of material or article.

Picture of sample



Photo 1



Photo 2

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