TEST REPORT

No. **8621.SH.2105.0158R1** Date: **09.10, 2021** Page: **1 / 28**

Applicant	:	CLOUDS CRANE TECHNOLOGY CO., LTD.
Address	:	NO.9 YONGNING ROAD, TONGGUANG INDUSTRIAL ZONE, YUYAO NINGBO CHINA

Below information submitted by the applicant:

Product Name	:	Water Kettle For Household Use
Model	:	BK1707, BK710-E, BK601-B
Model may cover	:	Refer to model declaration
Reference info.	:	/
Manufacturer info.	:	/
Supplier info.	:	/
Buyer info.	:	/
Country of Destination	:	/
Country of Origin	:	China

Sample Received	:	05.21, 2021
Test Period	:	05.21, 2021 – 06.03, 2021; 09.01, 2021 - 09.04, 2021
Test Requirement	:	Refer to next pages
Test Method	:	Refer to next pages
Test Result	:	Refer to next pages
Test Conclusion	:	Refer to next pages

Revised report, instead of 8621.SH.2105.0158, 2021-06-04

Signed for and on behalf of
Jordan Wang, General Manager
BU Chemical Compliance
TUV THURINGEN (SHANGHAI) CO., LTD.
Location: Shanghai

TEST RESULTS

Food contact materials in accordance with General Requirement (Article 3) in EU Regulation No. 1935/2004, German Food, Articles of Daily Use and Feed Code of September 1 2005 (LFGB) Section 30 and 31, BfR recommendation, Council of Europe Resolution ResAP(2004)5, Commission Regulation (EU) No 10/2011 and its subsequent amendment Regulation EU No.321/2011, No.1282/2011, No.1183/2012, No.202/2014, No.865/2014, No. 2015/174, No.2016/1416, No.2017/752, No.2018/79, No.2018/213, No.2019/37, No.2020/1245 on plastic materials and articles intended to come into contact with foodstuffs, Technical Guide on Metals and Alloys used in food contact materials and articles of the 1st edition in 2013, AfPS GS 2019:01, test items as below:

	Test Items	Verdict
1.	Sensorial examination odor and taste	PASS
2.	Overall migration test; specific migration of primary aromatic amines; soluble heavy metals; total lead and cadmium content; peroxide value; specific migration of bisphenol A (BPA); specific migration of softeners and phthalates; catalyst residue content for PP plastics	PASS
3.	Leachable Lead, Cadmium and Cobalt for Glass Material	PASS
4.	overall migration; soluble heavy metal; specific migration of primary aromatic amine, specific migration of bisphenol A, specific migration of phthalates, specific migration of styrene, volatile organic matter and total Lead and Cadmium content, peroxide value for PS materials	PASS
5.	overall migration; specific migration of primary aromatic amine; soluble heavy metal; specific migration of bisphenol A; specific migration of phthalates, specific migration of formaldehyde, specific migration of caprolactam; specific migration of hexamethylenediamine; total Lead and Cadmium, peroxide value for Nylon materials	PASS
6.	Leachable Heavy metal content for metal materials	PASS
7.	Overall migration test, specific migration of primary aromatic amines; soluble heavy metals; specific migration of bisphenol A (BPA); specific migration of softeners and phthalates; Extractable substances, Volatile organic substances (For silicone), Residual catalyst, Remaining peroxides and organotin compounds for silicone materials	PASS
8.	Bisphenol A content for all polymer materials	PASS
9.	PAHs content in acc. to AfPS GS 2019:01	PASS

SAMPLE DESCRIPTION

Sample description : 1#. Kettle Body, PP
2#. Kettle Body, Glass
3#. Kettle Cover, PP
4#. Water Guide, PS
5#. Filt Net, PA
6#. Heat Plate, SUS304
7#. Sealing Ring, Silicone

TEST RESULTS

1, Sensorial examination odor and taste test

Test Method: sensory test with reference to DIN 10955:2004

Test Items	Test Results	Permissible Limit
	Whole product	
Test Media	Distilled water	---
Temperature, ℃	100.0	---
Contact Time, hour	0.5	---

Test Items	Test Results	Permissible Limit
	Whole product	
Sensorial examination odor	0	2.5, max
Sensorial examination taste	0	2.5, max
Comment(s)	PASS	

Scale evaluation:
0: No perceptible odor
1: Odor just perceptible (still difficult to define)
2: Moderate odor
3: Moderately strong odor
4: Strong odor

2, Overall migration test

Test method:

EN 1186-1:2002 guide to the selection of conditions and test methods for overall migration
EN 1186-3:2002 test methods for overall migration into aqueous food simulants by total immersion
EN 1186-9:2002 test methods for overall migration into aqueous food simulants by article filling

Test Parameter	Test Results				Permissible Limit
	1#	2#	3#	4#	
Test Media	3% acetic acid				---
Temperature, ℃	100.0	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	0.5	---
1st, Overall migration test, mg/dm²	<3.0	<3.0	<3.0	<3.0	10, max
2nd, Overall migration test, mg/dm²	<3.0	<3.0	<3.0	<3.0	10, max
3rd, Overall migration test, mg/dm²	<3.0	<3.0	<3.0	<3.0	10, max
Comment(s)	PASS	PASS	PASS	PASS	---

Test Parameter	Test Results				Permissible Limit
	5#	7#	/	/	
Test Media	3% acetic acid				---
Temperature, ℃	100.0	100.0	/	/	---
Contact Time, hour	0.5	0.5	/	/	---
1st, Overall migration test, mg/dm²	<3.0	<3.0	/	/	10, max
2nd, Overall migration test, mg/dm²	<3.0	<3.0	/	/	10, max
3rd, Overall migration test, mg/dm²	<3.0	<3.0	/	/	10, max
Comment(s)	PASS	PASS	/	/	---

Test Parameter	Test Results				Permissible Limit
	1#	2#	3#	4#	
Test Media	10% Ethanol				---
Temperature, ℃	100.0	100.0	100.0	100.0	---

Test Parameter	Test Results				Permissible Limit
	1#	2#	3#	4#	
Contact Time, hour	0.5	0.5	0.5	0.5	---
1st, Overall migration test, mg/dm²	<3.0	<3.0	<3.0	<3.0	10, max
2nd, Overall migration test, mg/dm²	<3.0	<3.0	<3.0	<3.0	10, max
3rd, Overall migration test, mg/dm²	<3.0	<3.0	<3.0	<3.0	10, max
Comment(s)	PASS	PASS	PASS	PASS	---

Test Parameter	Test Results				Permissible Limit
	5#	7#	/	/	
Test Media	10% Ethanol				---
Temperature, ℃	100.0	100.0	/	/	---
Contact Time, hour	0.5	0.5	/	/	---
1st, Overall migration test, mg/dm²	<3.0	<3.0	/	/	10, max
2nd, Overall migration test, mg/dm²	<3.0	<3.0	/	/	10, max
3rd, Overall migration test, mg/dm²	<3.0	<3.0	/	/	10, max
Comment(s)	PASS	PASS	/	/	---

3, specific migration of heavy metal

Test Method: with reference to EN 13130-1:2004, followed by analysis using ICP-OES, UV-vis, IC, ICP-MS

Test Parameter	Test Results			Permissible Limit
	1#, 1st	1#, 2nd	1#, 3rd	
Test Media	3% acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---
Soluble Aluminum, Al, mg/kg	<0.10	<0.10	<0.10	≤1.0
Soluble Ammonium, NH_4, mg/kg	<0.01	<0.01	<0.01	---
Soluble Antimony, Sb, mg/kg	<0.01	<0.01	<0.01	≤0.04
Soluble Arsenic, As, mg/kg	<0.002	<0.002	<0.002	≤0.002
Soluble Barium, Ba, mg/kg	<0.10	<0.10	<0.10	≤1.0
Soluble Cadmium, Cd, mg/kg	<0.002	<0.002	<0.002	≤0.002
Soluble Calcium, Ca, mg/kg	<0.01	<0.01	<0.01	---
Soluble Chromium, Cr, mg/kg	<0.01	<0.01	<0.01	≤0.02
Soluble Cobalt, Co, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Copper, Cu, mg/kg	<0.10	<0.10	<0.10	≤5.0
Soluble Europium, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Gadolinium, mg/kg	<0.01	<0.01	<0.01	≤0.05

Test Parameter	Test Results			Permissible Limit
	1#, 1st	1#, 2nd	1#, 3rd	
Soluble Iron, Fe, mg/kg	<0.50	<0.50	<0.50	≤48
Soluble Lanthanum, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Lead, Pb, mg/kg	<0.01	<0.01	<0.01	≤0.02
Soluble Lithium, Li, mg/kg	<0.10	<0.10	<0.10	≤0.6
Soluble Magnesium, Mg, mg/kg	<0.01	<0.01	<0.01	---
Soluble Manganese, Mn, mg/kg	<0.10	<0.10	<0.10	≤0.6
Soluble Mercury, Hg, mg/kg	<0.002	<0.002	<0.002	≤0.002
Soluble Nickel, Ni, mg/kg	<0.01	<0.01	<0.01	≤0.02
Soluble Potassium, K, mg/kg	<0.01	<0.01	<0.01	---
Soluble Sodium, Na, mg/kg	<0.01	<0.01	<0.01	---
Soluble Terbium, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Zinc, Zn, mg/kg	<0.05	<0.05	<0.05	≤5.0
Comment(s)	PASS	PASS	PASS	---

Test Parameter	Test Results			Permissible Limit
	2#, 1st	2#, 2nd	2#, 3rd	
Test Media	3% acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---
Soluble Aluminum, Al, mg/kg	<0.10	<0.10	<0.10	≤1.0
Soluble Ammonium, NH_4, mg/kg	<0.01	<0.01	<0.01	---
Soluble Antimony, Sb, mg/kg	<0.01	<0.01	<0.01	≤0.04
Soluble Arsenic, As, mg/kg	<0.002	<0.002	<0.002	≤0.002
Soluble Barium, Ba, mg/kg	<0.10	<0.10	<0.10	≤1.0
Soluble Cadmium, Cd, mg/kg	<0.002	<0.002	<0.002	≤0.002
Soluble Calcium, Ca, mg/kg	<0.01	<0.01	<0.01	---
Soluble Chromium, Cr, mg/kg	<0.01	<0.01	<0.01	≤0.02
Soluble Cobalt, Co, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Copper, Cu, mg/kg	<0.10	<0.10	<0.10	≤5.0
Soluble Europium, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Gadolinium, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Iron, Fe, mg/kg	<0.50	<0.50	<0.50	≤48
Soluble Lanthanum, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Lead, Pb, mg/kg	<0.01	<0.01	<0.01	≤0.02

Test Parameter	Test Results			Permissible Limit
	2#, 1st	2#, 2nd	2#, 3rd	
Soluble Lithium, Li, mg/kg	<0.10	<0.10	<0.10	≤0.6
Soluble Magnesium, Mg, mg/kg	<0.01	<0.01	<0.01	---
Soluble Manganese, Mn, mg/kg	<0.10	<0.10	<0.10	≤0.6
Soluble Mercury, Hg, mg/kg	<0.002	<0.002	<0.002	≤0.002
Soluble Nickel, Ni, mg/kg	<0.01	<0.01	<0.01	≤0.02
Soluble Potassium, K, mg/kg	<0.01	<0.01	<0.01	---
Soluble Sodium, Na, mg/kg	<0.01	<0.01	<0.01	---
Soluble Terbium, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Zinc, Zn, mg/kg	<0.05	<0.05	<0.05	≤5.0
Comment(s)	PASS	PASS	PASS	---

Test Parameter	Test Results			Permissible Limit
	3#, 1st	3#, 2nd	3#, 3rd	
Test Media	3% acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---
Soluble Aluminum, Al, mg/kg	<0.10	<0.10	<0.10	≤1.0
Soluble Ammonium, NH_4, mg/kg	<0.01	<0.01	<0.01	---
Soluble Antimony, Sb, mg/kg	<0.01	<0.01	<0.01	≤0.04
Soluble Arsenic, As, mg/kg	<0.002	<0.002	<0.002	≤0.002
Soluble Barium, Ba, mg/kg	<0.10	<0.10	<0.10	≤1.0
Soluble Cadmium, Cd, mg/kg	<0.002	<0.002	<0.002	≤0.002
Soluble Calcium, Ca, mg/kg	<0.01	<0.01	<0.01	---
Soluble Chromium, Cr, mg/kg	<0.01	<0.01	<0.01	≤0.02
Soluble Cobalt, Co, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Copper, Cu, mg/kg	<0.10	<0.10	<0.10	≤5.0
Soluble Europium, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Gadolinium, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Iron, Fe, mg/kg	<0.50	<0.50	<0.50	≤48
Soluble Lanthanum, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Lead, Pb, mg/kg	<0.01	<0.01	<0.01	≤0.02
Soluble Lithium, Li, mg/kg	<0.10	<0.10	<0.10	≤0.6
Soluble Magnesium, Mg, mg/kg	<0.01	<0.01	<0.01	---
Soluble Manganese, Mn, mg/kg	<0.10	<0.10	<0.10	≤0.6

Test Parameter	Test Results			Permissible Limit
	3#, 1st	3#, 2nd	3#, 3rd	
Soluble Mercury, Hg, mg/kg	<0.002	<0.002	<0.002	≤0.002
Soluble Nickel, Ni, mg/kg	<0.01	<0.01	<0.01	≤0.02
Soluble Potassium, K, mg/kg	<0.01	<0.01	<0.01	---
Soluble Sodium, Na, mg/kg	<0.01	<0.01	<0.01	---
Soluble Terbium, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Zinc, Zn, mg/kg	<0.05	<0.05	<0.05	≤5.0
Comment(s)	PASS	PASS	PASS	---

Test Parameter	Test Results			Permissible Limit
	4#, 1st	4#, 2nd	4#, 3rd	
Test Media	3% acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---
Soluble Aluminum, Al, mg/kg	<0.10	<0.10	<0.10	≤1.0
Soluble Ammonium, NH_4, mg/kg	<0.01	<0.01	<0.01	---
Soluble Antimony, Sb, mg/kg	<0.01	<0.01	<0.01	≤0.04
Soluble Arsenic, As, mg/kg	<0.002	<0.002	<0.002	≤0.002
Soluble Barium, Ba, mg/kg	<0.10	<0.10	<0.10	≤1.0
Soluble Cadmium, Cd, mg/kg	<0.002	<0.002	<0.002	≤0.002
Soluble Calcium, Ca, mg/kg	<0.01	<0.01	<0.01	---
Soluble Chromium, Cr, mg/kg	<0.01	<0.01	<0.01	≤0.02
Soluble Cobalt, Co, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Copper, Cu, mg/kg	<0.10	<0.10	<0.10	≤5.0
Soluble Europium, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Gadolinium, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Iron, Fe, mg/kg	<0.50	<0.50	<0.50	≤48
Soluble Lanthanum, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Lead, Pb, mg/kg	<0.01	<0.01	<0.01	≤0.02
Soluble Lithium, Li, mg/kg	<0.10	<0.10	<0.10	≤0.6
Soluble Magnesium, Mg, mg/kg	<0.01	<0.01	<0.01	---
Soluble Manganese, Mn, mg/kg	<0.10	<0.10	<0.10	≤0.6
Soluble Mercury, Hg, mg/kg	<0.002	<0.002	<0.002	≤0.002
Soluble Nickel, Ni, mg/kg	<0.01	<0.01	<0.01	≤0.02
Soluble Potassium, K, mg/kg	<0.01	<0.01	<0.01	---

Test Parameter	Test Results			Permissible Limit
	4#, 1st	4#, 2nd	4#, 3rd	
Soluble Sodium, Na, mg/kg	<0.01	<0.01	<0.01	---
Soluble Terbium, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Zinc, Zn, mg/kg	<0.05	<0.05	<0.05	≤5.0
Comment(s)	PASS	PASS	PASS	---

Test Parameter	Test Results			Permissible Limit
	5#, 1st	5#, 2nd	5#, 3rd	
Test Media	3% acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---
Soluble Aluminum, Al, mg/kg	<0.10	<0.10	<0.10	≤1.0
Soluble Ammonium, NH_4, mg/kg	<0.01	<0.01	<0.01	---
Soluble Antimony, Sb, mg/kg	<0.01	<0.01	<0.01	≤0.04
Soluble Arsenic, As, mg/kg	<0.002	<0.002	<0.002	≤0.002
Soluble Barium, Ba, mg/kg	<0.10	<0.10	<0.10	≤1.0
Soluble Cadmium, Cd, mg/kg	<0.002	<0.002	<0.002	≤0.002
Soluble Calcium, Ca, mg/kg	<0.01	<0.01	<0.01	---
Soluble Chromium, Cr, mg/kg	<0.01	<0.01	<0.01	≤0.02
Soluble Cobalt, Co, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Copper, Cu, mg/kg	<0.10	<0.10	<0.10	≤5.0
Soluble Europium, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Gadolinium, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Iron, Fe, mg/kg	<0.50	<0.50	<0.50	≤48
Soluble Lanthanum, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Lead, Pb, mg/kg	<0.01	<0.01	<0.01	≤0.02
Soluble Lithium, Li, mg/kg	<0.10	<0.10	<0.10	≤0.6
Soluble Magnesium, Mg, mg/kg	<0.01	<0.01	<0.01	---
Soluble Manganese, Mn, mg/kg	<0.10	<0.10	<0.10	≤0.6
Soluble Mercury, Hg, mg/kg	<0.002	<0.002	<0.002	≤0.002
Soluble Nickel, Ni, mg/kg	<0.01	<0.01	<0.01	≤0.02
Soluble Potassium, K, mg/kg	<0.01	<0.01	<0.01	---
Soluble Sodium, Na, mg/kg	<0.01	<0.01	<0.01	---
Soluble Terbium, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Zinc, Zn, mg/kg	<0.05	<0.05	<0.05	≤5.0

Test Parameter	Test Results			Permissible Limit
	5#, 1st	5#, 2nd	5#, 3rd	
Comment(s)	PASS	PASS	PASS	---

Test Parameter	Test Results			Permissible Limit
	7#, 1st	7#, 2nd	7#, 3rd	
Test Media	3% acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---
Soluble Aluminum, Al, mg/kg	<0.10	<0.10	<0.10	≤1.0
Soluble Ammonium, NH_4, mg/kg	<0.01	<0.01	<0.01	---
Soluble Antimony, Sb, mg/kg	<0.01	<0.01	<0.01	≤0.04
Soluble Arsenic, As, mg/kg	<0.002	<0.002	<0.002	≤0.002
Soluble Barium, Ba, mg/kg	<0.10	<0.10	<0.10	≤1.0
Soluble Cadmium, Cd, mg/kg	<0.002	<0.002	<0.002	≤0.002
Soluble Calcium, Ca, mg/kg	<0.01	<0.01	<0.01	---
Soluble Chromium, Cr, mg/kg	<0.01	<0.01	<0.01	≤0.02
Soluble Cobalt, Co, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Copper, Cu, mg/kg	<0.10	<0.10	<0.10	≤5.0
Soluble Europium, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Gadolinium, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Iron, Fe, mg/kg	<0.50	<0.50	<0.50	≤48
Soluble Lanthanum, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Lead, Pb, mg/kg	<0.01	<0.01	<0.01	≤0.02
Soluble Lithium, Li, mg/kg	<0.10	<0.10	<0.10	≤0.6
Soluble Magnesium, Mg, mg/kg	<0.01	<0.01	<0.01	---
Soluble Manganese, Mn, mg/kg	<0.10	<0.10	<0.10	≤0.6
Soluble Mercury, Hg, mg/kg	<0.002	<0.002	<0.002	≤0.002
Soluble Nickel, Ni, mg/kg	<0.01	<0.01	<0.01	≤0.02
Soluble Potassium, K, mg/kg	<0.01	<0.01	<0.01	---
Soluble Sodium, Na, mg/kg	<0.01	<0.01	<0.01	---
Soluble Terbium, mg/kg	<0.01	<0.01	<0.01	≤0.05
Soluble Zinc, Zn, mg/kg	<0.05	<0.05	<0.05	≤5.0
Comment(s)	PASS	PASS	PASS	---

4, Specific migration test of primary aromatic amine

Test method: Sample preparation with reference to EN 13130-1:2004, followed by analysis with reference to DIN

55610:1986.

Test Parameter	Test Results			Permissible Limit
	1#, 1st	1#, 2nd	1#, 3rd	
Test Media	3% acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---
Specific migration of 2-Anisidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Benzidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Methylene-bis(2-chloroaniline), mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Diaminodiphenylmethane, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Oxydianiline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4-Chloroaniline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 3,3'-Dimethoxybenzidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 3,3'-Dimethylbenzidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Methoxy-5-methylaniline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2,4,5-Trimethylaniline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Thiodianiline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4-Aminoazobenzene, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2,4-Diaminoanisole, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Diamino-3,3'-dimethyldiphenyl methane, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Naphthylamine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 3,3'-Dichlorobenzidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4-Aminobiphenyl, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Toluidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4-Chloro-2-methylaniline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2,4-Diaminotoluene, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Aminoazotoluene, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Amino-4-nitrotoluene, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 1,3-Phenylenediamine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Comment(s)	PASS	PASS	PASS	---

Test Parameter	Test Results			Permissible Limit
	2#, 1st	2#, 2nd	2#, 3rd	
Test Media	3% acetic acid			---

Test Parameter	Test Results			Permissible Limit
	2#, 1st	2#, 2nd	2#, 3rd	
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---
Specific migration of 2-Anisidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Benzidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Methylene-bis(2-chloroaniline), mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Diaminodiphenylmethane, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Oxydianiline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4-Chloroaniline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 3,3'-Dimethoxybenzidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 3,3'-Dimethylbenzidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Methoxy-5-methylaniline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2,4,5-Trimethylaniline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Thiodianiline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4-Aminoazobenzene, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2,4-Diaminoanisole, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Diamino-3,3'-dimethyldiphenyl methane, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Naphthylamine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 3,3'-Dichlorobenzidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4-Aminobiphenyl, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Toluidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4-Chloro-2-methylaniline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2,4-Diaminotoluene, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Aminoazotoluene, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Amino-4-nitrotoluene, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 1,3-Phenylenediamine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Comment(s)	PASS	PASS	PASS	---

Test Parameter	Test Results			Permissible Limit
	3#, 1st	3#, 2nd	3#, 3rd	
Test Media	3% acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---

Test Parameter	Test Results			Permissible Limit
	3#, 1st	3#, 2nd	3#, 3rd	
Specific migration of 2-Anisidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Benzidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Methylene-bis(2-chloroaniline), mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Diaminodiphenylmethane, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Oxydianiline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4-Chloroaniline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 3,3'-Dimethoxybenzidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 3,3'-Dimethylbenzidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Methoxy-5-methylaniline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2,4,5-Trimethylaniline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Thiodianiline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4-Aminoazobenzene, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2,4-Diaminoanisole, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Diamino-3,3'-dimethyldiphenyl methane, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Naphthylamine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 3,3'-Dichlorobenzidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4-Aminobiphenyl, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Toluidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4-Chloro-2-methylaniline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2,4-Diaminotoluene, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Aminoazotoluene, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Amino-4-nitrotoluene, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 1,3-Phenylenediamine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Comment(s)	PASS	PASS	PASS	---

Test Parameter	Test Results			Permissible Limit
	4#, 1st	4#, 2nd	4#, 3rd	
Test Media	3% acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---
Specific migration of 2-Anisidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Benzidine, mg/kg	<0.002	<0.002	<0.002	≤0.002

Test Parameter	Test Results			Permissible Limit
	4#, 1st	4#, 2nd	4#, 3rd	
Specific migration of 4,4'-Methylene-bis(2-chloroaniline), mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Diaminodiphenylmethane, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Oxydianiline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4-Chloroaniline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 3,3'-Dimethoxybenzidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 3,3'-Dimethylbenzidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Methoxy-5-methylaniline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2,4,5-Trimethylaniline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Thiodianiline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4-Aminoazobenzene, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2,4-Diaminoanisole, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Diamino-3,3'-dimethyldiphenyl methane, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Naphthylamine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 3,3'-Dichlorobenzidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4-Aminobiphenyl, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Toluidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4-Chloro-2-methylaniline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2,4-Diaminotoluene, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Aminoazotoluene, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Amino-4-nitrotoluene, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 1,3-Phenylenediamine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Comment(s)	PASS	PASS	PASS	---

Test Parameter	Test Results			Permissible Limit
	5#, 1st	5#, 2nd	5#, 3rd	
Test Media	3% acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---
Specific migration of 2-Anisidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Benzidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Methylene-bis(2-chloroaniline), mg/kg	<0.002	<0.002	<0.002	≤0.002

Test Parameter	Test Results			Permissible Limit
	5#, 1st	5#, 2nd	5#, 3rd	
Specific migration of 4,4'-Diaminodiphenylmethane, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Oxydianiline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4-Chloroaniline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 3,3'-Dimethoxybenzidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 3,3'-Dimethylbenzidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Methoxy-5-methylaniline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2,4,5-Trimethylaniline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Thiodianiline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4-Aminoazobenzene, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2,4-Diaminoanisole, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Diamino-3,3'-dimethyldiphenyl methane, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Naphthylamine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 3,3'-Dichlorobenzidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4-Aminobiphenyl, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Toluidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4-Chloro-2-methylaniline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2,4-Diaminotoluene, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Aminoazotoluene, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Amino-4-nitrotoluene, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 1,3-Phenylenediamine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Comment(s)	PASS	PASS	PASS	---

Test Parameter	Test Results			Permissible Limit
	7#, 1st	7#, 2nd	7#, 3rd	
Test Media	3% acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---
Specific migration of 2-Anisidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Benzidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Methylene-bis(2-chloroaniline), mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Diaminodiphenylmethane, mg/kg	<0.002	<0.002	<0.002	≤0.002

Test Parameter	Test Results			Permissible Limit
	7#, 1st	7#, 2nd	7#, 3rd	
Specific migration of 4,4'-Oxydianiline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4-Chloroaniline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 3,3'-Dimethoxybenzidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 3,3'-Dimethylbenzidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Methoxy-5-methylaniline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2,4,5-Trimethylaniline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Thiodianiline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4-Aminoazobenzene, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2,4-Diaminoanisole, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4,4'-Diamino-3,3'-dimethyldiphenyl methane, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Naphthylamine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 3,3'-Dichlorobenzidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4-Aminobiphenyl, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Toluidine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 4-Chloro-2-methylaniline, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2,4-Diaminotoluene, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Aminoazotoluene, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 2-Amino-4-nitrotoluene, mg/kg	<0.002	<0.002	<0.002	≤0.002
Specific migration of 1,3-Phenylenediamine, mg/kg	<0.002	<0.002	<0.002	≤0.002
Comment(s)	PASS	PASS	PASS	---

5, Specific Migration of Bisphenol A

Test Method: sample preparation with reference to EN 13130-1:2004, EN 13130-3:2004, analysis by GC/MS

Test Parameter	Test Results			Permissible Limit
	1#, 1st	1#, 2nd	1#, 3rd	
Test Media	3% acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---
Specific migration of Bisphenol A, mg/kg	<0.05	<0.05	<0.05	0.05, max
Comment(s)	PASS	PASS	PASS	---

Test Parameter	Test Results			Permissible Limit
	2#, 1st	2#, 2nd	2#, 3rd	
Test Media	3% acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---
Specific migration of Bisphenol A, mg/kg	<0.05	<0.05	<0.05	0.05, max
Comment(s)	PASS	PASS	PASS	---

Test Parameter	Test Results			Permissible Limit
	3#, 1st	3#, 2nd	3#, 3rd	
Test Media	3% acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---
Specific migration of Bisphenol A, mg/kg	<0.05	<0.05	<0.05	0.05, max
Comment(s)	PASS	PASS	PASS	---

Test Parameter	Test Results			Permissible Limit
	4#, 1st	4#, 2nd	4#, 3rd	
Test Media	3% acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---
Specific migration of Bisphenol A, mg/kg	<0.05	<0.05	<0.05	0.05, max
Comment(s)	PASS	PASS	PASS	---

Test Parameter	Test Results			Permissible Limit
	5#, 1st	5#, 2nd	5#, 3rd	
Test Media	3% acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---
Specific migration of Bisphenol A, mg/kg	<0.05	<0.05	<0.05	0.05, max
Comment(s)	PASS	PASS	PASS	---

Test Parameter	Test Results			Permissible Limit
	7#, 1st	7#, 2nd	7#, 3rd	
Test Media	3% acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---

Test Parameter	Test Results			Permissible Limit
	7#, 1st	7#, 2nd	7#, 3rd	
Specific migration of Bisphenol A, mg/kg	<0.05	<0.05	<0.05	0.05, max
Comment(s)	PASS	PASS	PASS	---

6, Specific migration of softeners and phthalates

Test Method: Sample preparation with reference to EN 13130-1:2004, followed by analysis with GC/MS

Test Parameter	Test Results			Permissible Limit
	1#, 1st	1#, 2nd	1#, 3rd	
Test Media	3% acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---
Specific migration of DEHP, mg/kg	<0.05	<0.05	<0.05	1.5, max
Specific migration of DBP, mg/kg	<0.05	<0.05	<0.05	0.3, max
Specific migration of BBP, mg/kg	<0.05	<0.05	<0.05	30, max
Specific migration of DINP, mg/kg	<0.05	<0.05	<0.05	9, max
Specific migration of DIDP, mg/kg	<0.05	<0.05	<0.05	9, max
Specific migration of DEHT, mg/kg	<0.05	<0.05	<0.05	60, max
Specific migration of DEHA, mg/kg	<0.05	<0.05	<0.05	18, max
Specific migration of other phthalates and softeners, mg/kg	<0.05	<0.05	<0.05	0.05, max
Comment(s)	PASS	PASS	PASS	---

Test Parameter	Test Results			Permissible Limit
	2#, 1st	2#, 2nd	2#, 3rd	
Test Media	3% acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---
Specific migration of DEHP, mg/kg	<0.05	<0.05	<0.05	1.5, max
Specific migration of DBP, mg/kg	<0.05	<0.05	<0.05	0.3, max
Specific migration of BBP, mg/kg	<0.05	<0.05	<0.05	30, max
Specific migration of DINP, mg/kg	<0.05	<0.05	<0.05	9, max
Specific migration of DIDP, mg/kg	<0.05	<0.05	<0.05	9, max
Specific migration of DEHT, mg/kg	<0.05	<0.05	<0.05	60, max
Specific migration of DEHA, mg/kg	<0.05	<0.05	<0.05	18, max
Specific migration of other phthalates and softeners, mg/kg	<0.05	<0.05	<0.05	0.05, max
Comment(s)	PASS	PASS	PASS	---

Test Parameter	Test Results			Permissible Limit
	3#, 1st	3#, 2nd	3#, 3rd	
Test Media	3% acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---
Specific migration of DEHP, mg/kg	<0.05	<0.05	<0.05	1.5, max
Specific migration of DBP, mg/kg	<0.05	<0.05	<0.05	0.3, max
Specific migration of BBP, mg/kg	<0.05	<0.05	<0.05	30, max
Specific migration of DINP, mg/kg	<0.05	<0.05	<0.05	9, max
Specific migration of DIDP, mg/kg	<0.05	<0.05	<0.05	9, max
Specific migration of DEHT, mg/kg	<0.05	<0.05	<0.05	60, max
Specific migration of DEHA, mg/kg	<0.05	<0.05	<0.05	18, max
Specific migration of other phthalates and softeners, mg/kg	<0.05	<0.05	<0.05	0.05, max
Comment(s)	PASS	PASS	PASS	---

Test Parameter	Test Results			Permissible Limit
	4#, 1st	4#, 2nd	4#, 3rd	
Test Media	3% acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---
Specific migration of DEHP, mg/kg	<0.05	<0.05	<0.05	1.5, max
Specific migration of DBP, mg/kg	<0.05	<0.05	<0.05	0.3, max
Specific migration of BBP, mg/kg	<0.05	<0.05	<0.05	30, max
Specific migration of DINP, mg/kg	<0.05	<0.05	<0.05	9, max
Specific migration of DIDP, mg/kg	<0.05	<0.05	<0.05	9, max
Specific migration of DEHT, mg/kg	<0.05	<0.05	<0.05	60, max
Specific migration of DEHA, mg/kg	<0.05	<0.05	<0.05	18, max
Specific migration of other phthalates and softeners, mg/kg	<0.05	<0.05	<0.05	0.05, max
Comment(s)	PASS	PASS	PASS	---

Test Parameter	Test Results			Permissible Limit
	5#, 1st	5#, 2nd	5#, 3rd	
Test Media	3% acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---
Specific migration of DEHP, mg/kg	<0.05	<0.05	<0.05	1.5, max

Test Parameter	Test Results			Permissible Limit
	5#, 1st	5#, 2nd	5#, 3rd	
Specific migration of DBP, mg/kg	<0.05	<0.05	<0.05	0.3, max
Specific migration of BBP, mg/kg	<0.05	<0.05	<0.05	30, max
Specific migration of DINP, mg/kg	<0.05	<0.05	<0.05	9, max
Specific migration of DIDP, mg/kg	<0.05	<0.05	<0.05	9, max
Specific migration of DEHT, mg/kg	<0.05	<0.05	<0.05	60, max
Specific migration of DEHA, mg/kg	<0.05	<0.05	<0.05	18, max
Specific migration of other phthalates and softeners, mg/kg	<0.05	<0.05	<0.05	0.05, max
Comment(s)	PASS	PASS	PASS	---

Test Parameter	Test Results			Permissible Limit
	7#, 1st	7#, 2nd	7#, 3rd	
Test Media	3% acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---
Specific migration of DEHP, mg/kg	<0.05	<0.05	<0.05	1.5, max
Specific migration of DBP, mg/kg	<0.05	<0.05	<0.05	0.3, max
Specific migration of BBP, mg/kg	<0.05	<0.05	<0.05	30, max
Specific migration of DINP, mg/kg	<0.05	<0.05	<0.05	9, max
Specific migration of DIDP, mg/kg	<0.05	<0.05	<0.05	9, max
Specific migration of DEHT, mg/kg	<0.05	<0.05	<0.05	60, max
Specific migration of DEHA, mg/kg	<0.05	<0.05	<0.05	18, max
Specific migration of other phthalates and softeners, mg/kg	<0.05	<0.05	<0.05	0.05, max
Comment(s)	PASS	PASS	PASS	---

7, Total Lead and Cadmium Content

Test Method: with reference to EN 1122, analysis was performed by ICP-OES/ AAS.

Test Parameter	Units	MDL	Test Results			Permissible Limit
			1#	2#	3#	
Total Lead Content	mg/kg	2	n.d.	n.d.	n.d.	40, max
Total Cadmium Content	mg/kg	2	n.d.	n.d.	n.d.	20, max

Test Parameter	Units	MDL	Test Results			Permissible Limit
			4#	5#	/	
Total Lead Content	mg/kg	2	n.d.	n.d.	/	40, max
Total Cadmium Content	mg/kg	2	n.d.	n.d.	/	20, max

8, Peroxide Value

Test Method: with reference to European Pharacopeia 5.0, Ph.Eur. Method 2.5.5

Test Parameter	Units	MDL	Test Results			Permissible Limit
			1#	2#	3#	
Peroxide value	---	---	Neg.	Neg.	Neg.	Negative

Test Parameter	Units	MDL	Test Results			Permissible Limit
			4#	5#	/	
Peroxide value	---	---	Neg.	Neg.	/	Negative

9, Catalyst residue, Chromium, Vanadium, Zirconium and Hafnium Content

Test Method: with reference to EN 1122, analysis was performed by ICP-OES/ AAS

Test Parameter	Units	MDL	Test Results		Permissible Limit
			1#	3#	
Total Chromium Content	mg/kg	2	n.d.	n.d.	10, max
Total Vanadium Content	mg/kg	5	n.d.	n.d.	20, max
Total Zirconium Content	mg/kg	10	n.d.	n.d.	70, max
Total Hafnium Content	mg/kg	10	n.d.	n.d.	70, max

10, Leachable Lead, Cadmium, Cobalt for glass materials

Test Method: with reference to DIN 51032, analysis was performed by ICP or AAS

Test Media: 4% Acetic Acid

Test Condition: 22℃ for 24hours

Test Parameter	Units	MDL	Test Results				Permissible Limit
			1#, 1st	1#, 2nd	1#, 3rd	1#, 4th	
Leaching Lead, Pb	mg/dm²	0.1	n.d.	n.d.	n.d.	n.d.	See table 1
Leaching Cadmium, Cd	mg/dm²	0.01	n.d.	n.d.	n.d.	n.d.	
Leaching Cobalt, Co	mg/kg	0.01	n.d.	n.d.	n.d.	n.d.	Not more than 0.01
Conclusion			Flatware, cookware, PASS				

Table 1, permissible limits for articles made from ceramics, glass ceramics with decorated inner surfaces, and for articles with enameled surfaces.

Items		Flatware		Hollowware	
		Lead, mg/dm²	Cadmium, mg/dm²	Lead, mg/l	Cadmium, mg/l
Tableware Kitchen Equipment	Made from ceramic, glass and glass ceramic	0.8*	0.07*	4.0*	0.3*
	Enameled	0.8	0.07	0.8	0.07
Cooking& baking utensils, receptacles also used as packaging storage container	Made from ceramic, glass and glass ceramic	0.4	0.05	1.5*	0.1*
	Enameled	0.1	0.05	0.4	0.07
Samples for enameled container, part of equipment and water heater		0.1	0.05	---	---

Note: the limits were referred to DIN 51032
* in agreement with EC directive

11, Specific Migration of Styrene

Test Method: sample preparation with reference to EN 13130-1:2004, EN 13130-3:2004, analysis by GC/MS

Test Parameter	Test Results			Permissible Limit
	4#, 1st	4#, 2nd	4#, 3rd	
Test Media	3% Acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---
Specific migration of Styrene, mg/kg	<0.01	<0.01	<0.01	0.01, max
Comment(s)	PASS	PASS	PASS	---

12, Specific migration of Caprolactam

Test method: with reference to EN 13130-1, analyzed by GCMS

Test Parameter	Test Results			Permissible Limit
	5#, 1st	5#, 2nd	5#, 3rd	
Test Media	3% acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---
Specific migration of Caprolactam, mg/kg	<0.01	<0.01	<0.01	0.01, max
Comment(s)	PASS	PASS	PASS	---

13, Specific migration of Formaldehyde

Test Method: with reference to EN 13130-1, analyzed by UV-Vis

Test Parameter	Test Results			Permissible Limit
	5#, 1st	5#, 2nd	5#, 3rd	
Test Media	3% acetic acid			---
Temperature, ℃	100.0	100.0	100.0	---
Contact Time, hour	0.5	0.5	0.5	---
Specific migration of Formaldehyde, mg/kg	<0.50	<0.50	<0.50	15, max
Comment(s)	PASS	PASS	PASS	---

14, Specific release heavy metals – CM/Res(2013)9

Test method: Sample prepared with reference to Technical Guide on Metals and Alloys used in food contact materials and articles of the 1st edition in 2013 (CM/Res(2013)9) and by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES) and Inductively Coupled Plasma Optical Emission Spectrometer with Mass Detector (ICP-MS) analysis.

Test Condition: 100.0℃/0.5hours with Citric acid (5 g/L) (0.5%)

						Unit	mg/kg
Extractable Elements	MDL	1st Result	2nd Result	1st + 2nd Result	7*Limit	3rd Result	Limit
		6#	6#	6#		6#	
Silver, Ag	0.01	n.d.	n.d.	n.d.	0.56	n.d.	0.08
Aluminum, Al	0.01	n.d.	n.d.	n.d.	35	n.d.	5
Chromium, Cr	0.01	n.d.	n.d.	n.d.	1.75	n.d.	0.25
Cobalt, Co	0.01	n.d.	n.d.	n.d.	0.14	n.d.	0.02
Copper, Cu	0.01	n.d.	n.d.	n.d.	28	n.d.	4
Iron, Fe	0.01	n.d.	n.d.	n.d.	280	n.d.	40
Magnesium, Mg	0.01	n.d.	n.d.	n.d.	---	n.d.	---
Manganese, Mn	0.01	n.d.	n.d.	n.d.	12.6	n.d.	1.8
Molybdenum, Mo	0.01	n.d.	n.d.	n.d.	0.84	n.d.	0.12
Nickel, Ni	0.01	n.d.	n.d.	n.d.	0.98	n.d.	0.14
Tin, Sn	0.01	n.d.	n.d.	n.d.	700	n.d.	100
Titanium, Ti	0.01	n.d.	n.d.	n.d.	---	n.d.	---
Vanadium, V	0.01	n.d.	n.d.	n.d.	0.07	n.d.	0.01
Zinc, Zn	0.01	n.d.	n.d.	n.d.	35	n.d.	5
Arsenic, As	0.001	n.d.	n.d.	n.d.	0.014	n.d.	0.002
Barium, Ba	0.01	n.d.	n.d.	n.d.	8.4	n.d.	1.2
Beryllium, Be	0.01	n.d.	n.d.	n.d.	0.07	n.d.	0.01
Cadmium, Cd	0.001	n.d.	n.d.	n.d.	0.035	n.d.	0.005
Mercury, Hg	0.001	n.d.	n.d.	n.d.	0.021	n.d.	0.003
Lithium, Li	0.01	n.d.	n.d.	n.d.	0.336	n.d.	0.048
Lead, Pb	0.001	n.d.	n.d.	n.d.	0.07	n.d.	0.010
Antimony, Sb	0.01	n.d.	n.d.	n.d.	0.28	n.d.	0.04
Thallium, Tl	0.0001	n.d.	n.d.	n.d.	0.0007	n.d.	0.0001

Note:
1. MDL = Method Detection Limit.
2. n.d. = Not detected, less than MDL.
3.The submitted sample/component is a repeated use article. The migration test was carried out three times on the same article. The sum of the results of the first and second tests should not exceed seven times the limit (Result 1st test + Result 2nd test <7* limit) and the Result 3rd should not exceed the limit.

15, Extractable component

Test Method: With reference to 61st Communication on testing of plastics in Bundesgesundheitsbl 46 (2003) 362.

Test Parameter	Test Results	Permissible Limit
	7#	
Test Media	3% acetic acid	---
Temperature, ℃	100.0	---
Contact Time, hour	0.5	---
Extractable Components, %(w/w)	0.13	0.5, max

Test Parameter	Test Results	Permissible Limit
	7#	
Comment(s)	PASS	---

Test Parameter	Test Results	Permissible Limit
	7#	
Test Media	10% Ethanol	---
Temperature, ℃	100.0	---
Contact Time, hour	0.5	---
Extractable Components, %(w/w)	0.07	0.5, max
Comment(s)	PASS	---

16, Total Lead, Cadmium and Platinum Content

Test Method: acidic digestion, analysis was performed by ICP-OES

Test Parameter	Units	MDL	Test Results	Permissible Limit
			7#	
Total Lead content	mg/kg	2	n.d.	40, max
Total Cadmium content	mg/kg	2	n.d.	20, max
Total Platinum content	mg/kg	2	n.d.	50, max

17, Organotin content (Monobutyltin, MBT; Dibutyltin, DBT; Tributyltin, TBT; Tetrabutyltin, TTBT; Monooctyltin, MOT; Dioctyltin, DOT; Tricyclohexyltin, TcyT)

Test Method: Solvent extraction followed by analysis using Gas Chromatography Spectrometer.

Test Parameter	Units	MDL	Test Results	Permissible Limit
			7#	
Monobutyltin, MBT	mg/kg	0.10	n.d.	1.0, max
Dibutyltin, DBT	mg/kg	0.01	n.d.	0.05, max
Tributyltin, TBT	mg/kg	0.01	n.d.	0.05, max
Tetrabutyltin, TeBT	mg/kg	0.01	n.d.	Sum of MBT, DBT, TBT, TTBT, MOT, DOT, TcyT: 2.5, max
Monooctyltin, MOT	mg/kg	0.01	n.d.	
Dioctyltin, DOT	mg/kg	0.01	n.d.	
Tricyclohexyltin, TcyT	mg/kg	0.01	n.d.	
Methyltin, MeT	mg/kg	0.01	n.d.	
Tripropytin, TPT	mg/kg	0.01	n.d.	
Dimethyltin, DMT	mg/kg	0.10	n.d.	

18, Peroxide value

Test Method: with reference to European Pharmacopoeia, 2005 Appendix XF, Peroxide Value method A

Test Parameter	Units	MDL	Test Results	Permissible Limit
			7#	
Peroxide value	---	---	Neg.	Negative

19, Volatile organic matter (VOM)

Test Method: with reference to LFGB BfR Part B Part II section XV, May 2003 and LFGB section 35 B80.30 1(EG)

Test Condition: 4hours at 200℃

Test Parameter	Units	MDL	Test Results	Permissible Limit
			7#	
Volatile organic matter	%	0.01	0.21	0.5, max

20, Bisphenol A content

Test Method: with reference to EPA 3550, solvent extracted, followed analyzed by GC/MS and LC/MS/MS

Test Parameter	Units	MDL	Test Results				Permissible Limit
			1#	2#	3#	4#	
Bisphenol A content BPA, CAS No.80-05-7	mg/kg	0.05	n.d.	n.d.	n.d.	n.d.	0.05, max

Test Parameter	Units	MDL	Test Results				Permissible Limit
			5#	7#	/	/	
Bisphenol A content BPA, CAS No.80-05-7	mg/kg	0.05	n.d.	n.d.	/	/	0.05, max

21, PAHs content

Test Method: With reference to AfPS GS 2019:01, Analysis was performed by GC-MS.

Test Parameter	Units	MDL	Test Results				Permissible Limit
			1#	2#	3#	4#	
Naphthalene	mg/kg	0.2	n.d.	n.d.	n.d.	n.d.	Refer to form
Phenanthrene	mg/kg	0.2	n.d.	n.d.	n.d.	n.d.	Refer to form
Anthracene	mg/kg	0.2	n.d.	n.d.	n.d.	n.d.	Refer to form
Fluoranthene	mg/kg	0.2	n.d.	n.d.	n.d.	n.d.	Refer to form
Pyrene	mg/kg	0.2	n.d.	n.d.	n.d.	n.d.	Refer to form
Benzo[a]anthracene	mg/kg	0.2	n.d.	n.d.	n.d.	n.d.	Refer to form
Chrysene	mg/kg	0.2	n.d.	n.d.	n.d.	n.d.	Refer to form
Benzo[b]fluoranthene	mg/kg	0.2	n.d.	n.d.	n.d.	n.d.	Refer to form
Benzo[k]fluoranthene	mg/kg	0.2	n.d.	n.d.	n.d.	n.d.	Refer to form
Benzo[a]pyrene	mg/kg	0.2	n.d.	n.d.	n.d.	n.d.	Refer to form
Indeno[1,2,3-cd]pyrene	mg/kg	0.2	n.d.	n.d.	n.d.	n.d.	Refer to form
Dibenzo[a,h]anthracene	mg/kg	0.2	n.d.	n.d.	n.d.	n.d.	Refer to form
Benzo[g,h,i]perylene	mg/kg	0.2	n.d.	n.d.	n.d.	n.d.	Refer to form
Benzo[j[fluoranthene	mg/kg	0.2	n.d.	n.d.	n.d.	n.d.	Refer to form

Test Parameter	Units	MDL	Test Results				Permissible Limit
			1#	2#	3#	4#	
Benzo[e]pyrene	mg/kg	0.2	n.d.	n.d.	n.d.	n.d.	Refer to form
Sum of 15 PAHs	mg/kg	---	n.d.	n.d.	n.d.	n.d.	Refer to form
Comment(s)	---	---	Cat.1 PASS	Cat.1 PASS	Cat.1 PASS	Cat.1 PASS	Refer to form

Test Parameter	Units	MDL	Test Results				Permissible Limit
			5#	7#	/	/	
Naphthalene	mg/kg	0.2	n.d.	n.d.	/	/	Refer to form
Phenanthrene	mg/kg	0.2	n.d.	n.d.	/	/	Refer to form
Anthracene	mg/kg	0.2	n.d.	n.d.	/	/	Refer to form
Fluoranthene	mg/kg	0.2	n.d.	n.d.	/	/	Refer to form
Pyrene	mg/kg	0.2	n.d.	n.d.	/	/	Refer to form
Benzo[a]anthracene	mg/kg	0.2	n.d.	n.d.	/	/	Refer to form
Chrysene	mg/kg	0.2	n.d.	n.d.	/	/	Refer to form
Benzo[b]fluoranthene	mg/kg	0.2	n.d.	n.d.	/	/	Refer to form
Benzo[k]fluoranthene	mg/kg	0.2	n.d.	n.d.	/	/	Refer to form
Benzo[a]pyrene	mg/kg	0.2	n.d.	n.d.	/	/	Refer to form
Indeno[1,2,3-cd]pyrene	mg/kg	0.2	n.d.	n.d.	/	/	Refer to form
Dibenzo[a,h]anthracene	mg/kg	0.2	n.d.	n.d.	/	/	Refer to form
Benzo[g,h,i]perylene	mg/kg	0.2	n.d.	n.d.	/	/	Refer to form
Benzo[j[fluoranthene	mg/kg	0.2	n.d.	n.d.	/	/	Refer to form
Benzo[e]pyrene	mg/kg	0.2	n.d.	n.d.	/	/	Refer to form
Sum of 15 PAHs	mg/kg	---	n.d.	n.d.	/	/	Refer to form
Comment(s)	---	---	Cat.1 PASS	Cat.1 PASS	/	/	Refer to form

LIMITS FOR PAH IN PRODUCTS according to AfPS Document GS 2019:01

Parameter	Materials, that are intended to be put into the mouth or materials in toys with intended and prolonged skin-contact (longer than 30s)	Materials, not covered by category 1, with foreseeable skin-contact of > 30 s (prolonged skin-contact) or short-term repetitive contact with the human skin		Materials, not covered by category 1 or 2, with foreseeable skin-contact of up to 30 s (short-term skin contact)	
		Toys according to Toy Directive 2009/48/EU	Other products according to Product Safety Act	Toys according to Toy Directive 2009/48/EU	Other products according to Product Safety Act
Benzo[a]pyrene	<0.2	<0.2	<0.5	<0.5	<1
Benzo[e]pyrene	<0.2	<0.2	<0.5	<0.5	<1
Benzo[a]anthracene	<0.2	<0.2	<0.5	<0.5	<1
Benzo[b]fluoroanthene	<0.2	<0.2	<0.5	<0.5	<1

Parameter	Materials, that are intended to be put into the mouth or materials in toys with intended and prolonged skin-contact (longer than 30s)	Materials, not covered by category 1, with foreseeable skin-contact of > 30 s (prolonged skin-contact) or short-term repetitive contact with the human skin		Materials, not covered by category 1 or 2, with foreseeable skin-contact of up to 30 s (short-term skin contact)	
		Toys according to Toy Directive 2009/48/EU	Other products according to Product Safety Act	Toys according to Toy Directive 2009/48/EU	Other products according to Product Safety Act
Benzo[j]fluoranthene	<0.2	<0.2	<0.5	<0.5	<1
Benzo[k]fluoroanthene	<0.2	<0.2	<0.5	<0.5	<1
Benzo[g,h,i]perylene	<0.2	<0.2	<0.5	<0.5	<1
Chrysene	<0.2	<0.2	<0.5	<0.5	<1
Dibenzo[a,h]anthracene	<0.2	<0.2	<0.5	<0.5	<1
Indeno[1,2,3-cd]pyrene	<0.2	<0.2	<0.5	<0.5	<1
Phenanthrene, Pyrene, Anthracene, Fluoranthene	Sum<1	Sum<5	Sum<10	Sum<20	Sum<50
Naphthalene	<1	<2	<2	<10	<10
Sum 15 PAHs	<1	<5	<10	<20	<50

Note:
1.The products in category 2 and category 3 are divided into two groups with respective limits: toys according to directive 2009/48/EC and all other products according to ProdSG.
2. Add the requirement of repeated short term skin contact material in category 2

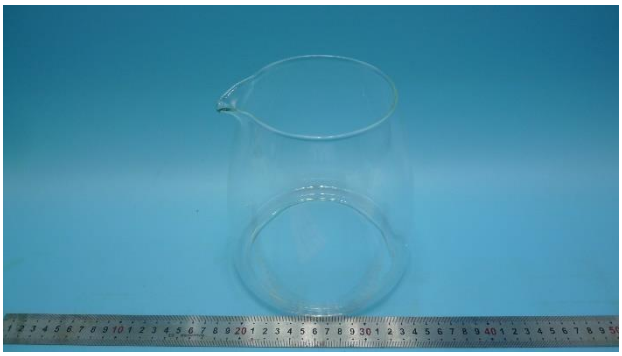
Note:

1, %, percentage; mg, milligrams; g, grams; kg, kilograms
2, mg/kg = milligrams per kilograms
3, mg/L = milligrams per litre
4, 0.1% = 1000mg/kg = 1000mg/L
5, < = less than
6, > = greater than
7, MDL = method detection limit
8, N.D. = not detected, < MDL

***** To be continued *****

SAMPLE IMAGE

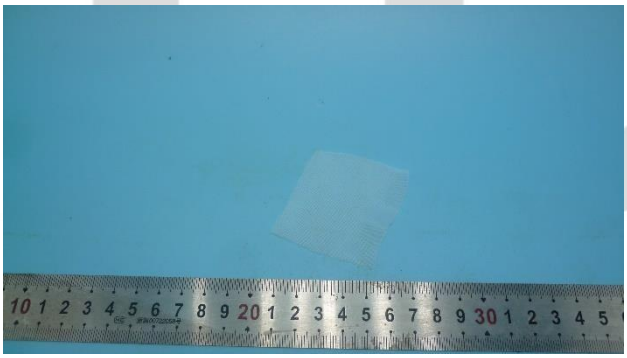
1#



2#

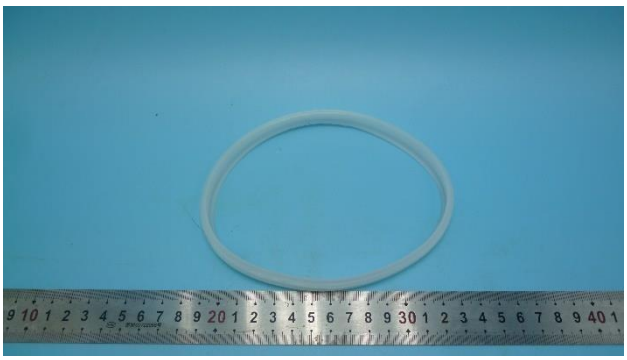
3#

4#



5#

6#



7#

Model declaration:

As the applicant declared, below products were made of same materials for food contact as tested in the above, BK601-A, BK601, BK601-B, BK601-D, BK602-A, BK602-B, BK602-C, BK602-A1, BK602-B1, BK602-C1, BK602-D, BK118, BK118-1, BK1601, BK1601-A, BK1602, BK1602-A, BK1602-B，BK705-E, BK1707, BK1707-1, BK1707-A, BK1707-A1, BK1610-BT1, BK1610-BT2, BK1612-BT1, BK1612-BT2, BK1610-EB1, BK1610-EB2, BK1611-EB1, BK1611-EB2, BK1612-EB1, BK1612-EB2, BK705, BK705-A, BK708, BK707, BK707-A, BK901, BK901-A, BK902, BK902-1, BK902-A, BK902-A1, BK902-A2, BK902-2, BK105, BK121, BK710, BK710-1, BK710-B, BK710-B1, BK710-E, BK710-E1, BK710-F, BK710-F1, BK710-C1, BK710-C2, BK710-C3, BK101-A, BK101-A1, BK1610, BK1610-T, BK1610-E, BK1610-ET, BK1611, BK1611-E, BK1612, BK1612-T, BK1612-E, BK1612-ET, BK1613, BK1613-T, BK1613-E, BK1613-ET, BK1709, BK1709-1, BK1709-A, BK1709-A1, BK1709-B, BK1709-B1

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