Test Report Number: 171101549SHA-001(R1)

Applicant: Ningbo Symay electrical Appliances enterprise Co., Ltd
18 Yantanghe road, Daqi sub-District, Beilun District, Ningbo city, Zhejiang

Date: Jan 14, 2019

Sample Description:

One(1) piece of submitted sample said to be	:	
Item Name	:	Coffee Maker
Testing Model	:	CM-101 Series; CM-102 Series; CM-105 Series; CM-106 Series; CM-107 Series; CM-108 Series; CM-109 Series; CM-110 Series; CM-111 Series; CM-112 Series; CM-113 Series; CM-116 Series; CM-117 Series; CM-118 Series;CM-119 Series; CM-121 Series; CM-122 Series; CM-123 Series; CM-125 Series; CM-126Series; CM-127Series; CM-128Series; CM-129Series; CM-130Series; CM-202 Series; CM-112B;
Material	:	(1)Black PA66 (2)White PP (3)Black PP (4)White silicon rubber (5)Stainless steel cup (6)Aluminum alloy (7)Glass (8)White ceramic cup

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Tests Conducted:

As Requested By The Applicant, For Details Refer To Attached Page(S).

Remark:

This is to supersede report No. 171101549SHA-001 dated in Jan.03, 2018.

Client confirmed the tested samples and reference photo were based on the self-declaration supplied by clients.

Intertek takes no responsibility for any issues of product consistency caused by inaccurate or invalid information submitted by the client.

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To be continued

Test Report Number: 171101549SHA-001(R1)

Tests requirement:

According to the test results of below test parameters, the food contacting components of submitted sample need complied with the suggested food contacting testing parameters for German §30 and §31 LFGB and also need complied with general requirement of regulation EC 1935/2004 article 3,paragraph 1.

Tests conducted:

Based on the assessment of the submitted sample and the information provided, the following tests had been conducted:

1) Sensory test on finished product
2) Global migration on plastic
3) Specific migration of heavy metal on plastic
4) Specific Migration Of primary aromatic amines
5) Specific Migration of Hexamethylenediamine
6) Volatile organic matter and peroxide residues on silicone rubber
7) Extractable compounds on silicone rubber
8) Organotin content on silicone rubber
9) Total polycyclic aromatic hydrocarbons on plastic and silicone rubber
10) Total lead and cadmium content on plastic and silicone rubber
11) Determination of heavy metal release on metal part
12) Leachable Pb & Cd & Co

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To be continued

Test Report Number: 171101549SHA-001(R1)

Tests Conclusion:

Tested Sample Tested Components of submitted sample	Standard	Result
	Sensory Analysis - Odour Test and Off-Taste Test	Pass
	European Commission Regulation No. 10/2011, Amendment (EU) 2018/213 and Regulation No. 1935/2004- Overall migration	Pass
	European commission regulation NO. 10/2011 and its amendments - specific migration of heavy metal.	Pass
	European commission regulation NO. 10/2011 annex II, Amendment (EU) 2016/1416 of 24 August 2016 and Regulation 1935/2004 - specific migration of Primary Aromatic Amines	Pass
	European commission regulation NO. 10/2011 annex I, Amendment (EU) 2016/1416 of 24 August 2016 and Regulation 1935/2004 - specific migration of hexamethylenediamine	Pass
	German food, commodities and feeding act(LFGB), plastic recommendation V / VI, XV requirement on Volatile Organic Matter and Peroxide Residues in Polystyrene / Styrene Copolymers & silicon rubber	Pass
	Extractable Substances in Silicone Rubber	Pass
	Organotin content on silicone rubber	Pass
	LFGB reguirement on total PAHs content	Pass
	Total Lead and Cadmium content	Pass
	EU Technical Guide Council of Europe Resolution CM/Res (2013) 9 on metals and alloys Used in Food Contact Materials and Articles on specific migration of heavy metal	Pass
	LFGB requirement -leachable Lead, Cadmium and Cobalt content	Pass

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To be continued

Test Sequence

1) Sensory Evaluation

With reference to §64 LFGB l00.90-6.

Test procedure：
Sample was thoroughly rinsed with distilled water and then totally immersed by distilled water. Filled sample was kept at ambient temperature __100 °C_ and relative humidity (40-80%) for _30 minutes_. Off-odor and off-taste was evaluated with 5 panelists using control sample of distilled water.

	Result	Limit
Appearance	Clear, Colourless	Clear, Colourless
Odor	0	2.5
Taste	0	2.5

Assessment:
Intensity scale:
0 = No perceptible odour / taste
1 = Odour / taste just perceptible (but still difficult to define)
2 = Slight odour / taste
3 = Distinct odour / taste
4 = Strong odour / taste

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To be continued

Test Sequence

2) Overall Migration Test For Plastic Food Contacting Materials/Articles

As per Commission Regulation (EU) No. 10/2011 and Amendment (EU) 2016/1416 of 24 August 2016 on plastic materials and articles intended to come into contact with food.

I. Test Condition:

Aqueous food simulant:

Test no.	Time and Temperature
OM4	1 hours at 100 °C

II. Test Results

Tested Component	Result in mg/dm^2	
	3%(w/v) acetic acid	20% (v/v) ethanol
(1)	<1.0	<1.0
(2)	<1.0	<1.0
(3)	<1.0	<1.0
Limit in	10	10

As per client's request, the above condition was used for the test.

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To be continued

Test Sequence

3) Specific Migration Of Metal For Plastic Food Contacting Materials/Articles

As per commission regulation (EU) NO. 10/ 2011 and its amendments on plastic materials and articles intended to come into contact with food.

I. Test Condition:
Aqueous food simulant: 3% (w/v) acetic acid

Time and Temperature
1 hours at 100 °C

II. Test Results

Tested Component	Result in mg/kg								
	Barium	Cobalt	Copper	Iron	Lithium	Manganese	Zinc	Aluminum	Nickel
(1)	<0.1	<0.03	<1	<5	<0.1	<0.1	<1	<0.1	<0.01
(2)	<0.1	<0.03	<1	<5	<0.1	<0.1	<1	<0.1	<0.01
(3)	<0.1	<0.03	<1	<5	<0.1	<0.1	<1	<0.1	<0.01
Limit in	1	0.05	5	48	0.6	0.6	5	1	0.02

Migration limit of Nickel was quoted from Amendment (EU) 2017/752 of 28 April 2017 Which will be effective on 19 May 2018
As per client's request, the above condition was used for the test.

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To be continued

Test Sequence

4) Specific Migration Of Primary Aromatic Amines Test For Plastic Food Contacting Materials/Articles

As per Commission Regulation (EU) No. 10/2011 and Amendment (EU) 2016/1416 of 24 August 2016 on testing the migration of primary aromatic amines from polyamide kitchenware and of formaldehyde from melamine kitchenware.

I. Test Condition:
Aqueous food simulant:

	Time and Temperature
	1 hours at 100 °C

II. Test Results

Tested Component	Result in mg/kg
	3% (w/v) acetic acid
(1)	ND
Limit in	Not detected

Remark: Detection Limit = 0.01 mg/kg
ND= Not detected

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To be continued

Test Sequence

5) Specific Migration of Hexamethylenediamine Test for Plastic Food Contacting Materials/Articles

As per commission regulation (EU) NO. 10/ 2011 of 14 January 2011 and Amendment (EU) 2016/1416 of 24 August 2016 on plastic materials and articles intended to come into contact with food, followed by Gas Chromatography-Mass Spectrometer (GC-MS) analysis.

I. Test Condition:

Aqueous food simulant:

	Time and Temperature 1 hours at 100 °C	
II. Test Results Tested	Result in mg/kg	
Component	3% (w/v) acetic acid	20% (v/v) ethanol
(1)	<1.0	<1.0
Limit in	2.4	2.4

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To be continued

Test Sequence

6) Volatile Organic Matter Of Silicone Rubber & Peroxide Residues Of Silicone Rubber and Polystyrene & Styrene Copolymers

As per LFGB recommendation BII XV and V / VI.

I. Test Condition:
Aqueous food simulant:

Time and Temperature
1 hours at 100 °C

II. Test Results

Tested Component	Result (% (w/w)
(4)	<0.1
Limit in	0.5% (w/w) (max.)

Tested Component	Result
(4)	No positive reaction
Limit in	No positive reaction to peroxides

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To be continued

Test Sequence

7) Extractable Substances Of Silicone Rubber

As per LFGB, Plastic Recommendation XV.

I. Test Condition:
Aqueous food simulant:

Time and Temperature
1 hours at 100 °C

II. Test Results

Tested Component	Result in mg/kg	
	3% (w/v) acetic acid	10% (v/v) ethanol
(4)	<0.1	<0.1
Limit in	0.5	0.5

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To be continued

Test Sequence

8) Organotin Content

As per DIN EN ISO 17353, by Gas Chromatographic Mass-Spectrometric (GC-MS) analysis.

I. Test Results

Tested Component	Result in µg/kg (4)	Limit (µg/kg
Monobutyltin	<25	25
Monomethyltin	<25	25
Monooctyltin	<25	25
Dibutyltin	<25	25
Dimethyltin	<25	25
Dioctyltin	<25	25
Tetrabutyltin	<25	25
Tributyltin	<25	25
Trioctyltin	<25	25

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To be continued

Test Sequence

9) Polycyclic aromatic hydrocarbons (PAHs) content

By solvent extraction and determined by Gas Chromatography - Mass Spectrometry Detector (GC-MSD).

I. Test Results

Tested Component	Result in mg/kg				Limit (mg/kg)
	(1)	(2)	(3)	(4)	
Naphthalene	ND	ND	ND	ND	Not Detected
Acenaphthylene	ND	ND	ND	ND	Not Detected
Acenaphthene	ND	ND	ND	ND	Not Detected
Fluorene	ND	ND	ND	ND	Not Detected
Phenanthrene	ND	ND	ND	ND	Not Detected
Anthracene	ND	ND	ND	ND	Not Detected
Fluoranthene	ND	ND	ND	ND	Not Detected
Pyrene	ND	ND	ND	ND	Not Detected
Chrysene	ND	ND	ND	ND	Not Detected
Benzo[a]anthracene	ND	ND	ND	ND	Not Detected
Benzo[b]fluoranthene	ND	ND	ND	ND	Not Detected
Benzo[k]fluoranthene	ND	ND	ND	ND	Not Detected
Benzo[a]pyrene	ND	ND	ND	ND	Not Detected
Dibenzo[a,h]anthracene	ND	ND	ND	ND	Not Detected
Indeno[1,2,3-cd]pyrene	ND	ND	ND	ND	Not Detected
Benzo[g,h,i]perylene	ND	ND	ND	ND	Not Detected
Benzo[j]fluoranthene	ND	ND	ND	ND	Not Detected
Benzo[e]pyrene	ND	ND	ND	ND	Not Detected
Sum of PAHs	ND	ND	ND	ND	Not Detected

Remark: ppm = Parts per million = mg/kg
ND = Not Detected
Detection Limit = 0.2 ppm

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To be continued

Test Sequence

10) Total Lead (Pb) And Cadmium (Cd) Content

By microwave digestion and followed by Inductively Coupled Plasma (ICP) Spectrophotometric analysis.

I. Test Results

Tested Component	Result in (ppm)				Limit (ppm)
	(1)	(2)	(3)	(4)	
Lead (Pb)	<10	<10	<10	<10	100
Cadmium (Cd)	<10	<10	<10	<10	100

Remark: ppm = parts per million = mg/kg

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To be continued

Test Sequence

11) Release Testing on Metals and Alloys Used in Food Contact Materials and Articles

With reference to EU Technical Guide "Council of Europe Resolution CM/Res(2013)9 on metals and alloys Used in Food Contact Materials and Articles". Migration test was carried out and heavy metal content was determined by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES) and Inductively Coupled Plasma Mass Spectrometer (ICP-MS) with reference to ISO 11885：2007 and ISO 17294-2:2003 respectively.

I. Test Condition:
Aqueous food simulant:

1 hours at 100 °C

II. Test Results Food Simulant: Artificial tap water (Prepare according DIN 10531 Clause 4.2.2.2)

Tested Component	Result 1st test (mg/kg)	Result 2nd test (mg/kg)	Result1st test +Result 2ndtest (mg/kg)	7*Limit (mg/kg)	Result 3rd test (mg/kg)	Limit (mg/kg)
	(5)	(5)	(5)		(5)	
Silver (Ag)	<0.05	<0.05	<0.05	0.56	<0.05	0.08
Aluminium (Al)	<1	<1	<1	35	<1	5
Chromium (Cr)	<0.02	<0.02	<0.02	1.75	<0.02	0.250
Cobalt (Co)	<0.01	<0.01	<0.01	0.14	<0.01	0.02
Copper (Cu)	<0.5	<0.5	<0.5	28	<0.5	4
Iron (Fe)	<1	<1	<1	280	<1	40
Manganese (Mn)	<0.1	<0.1	<0.1	12.6	<0.1	1.8
Molybdenum(Mo)	<0.02	<0.02	<0.02	0.84	<0.02	0.12
Nickel (Ni)	<0.1	<0.1	<0.1	0.98	<0.1	0.14
Tin (Sn)	<10	<10	<10	700	<10	100
Vanadium (V)	<0.005	<0.005	<0.005	0.07	<0.005	0.01
Zinc (Zn)	<1	<1	<1	35	<1	5
Antimony (Sb)	<0.01	<0.01	<0.01	0.28	<0.01	0.04
Arsenic (As)	<0.001	<0.001	<0.001	0.014	<0.001	0.002
Barium (Ba)	<0.1	<0.1	<0.1	8.4	<0.1	1.2
Beryllium (Be)	<0.01	<0.01	<0.01	0.07	<0.01	0.01
Cadmium (Cd)	<0.001	<0.001	<0.001	0.035	<0.001	0.005
Lead (Pb)	<0.005	<0.005	<0.005	0.070	<0.005	0.010
Lithium (Li)	<0.010	<0.010	<0.010	0.336	<0.010	0.048
Mercury (Hg)	<0.003	<0.003	<0.003	0.021	<0.003	0.003
Thallium (Tl)	<0.0001	<0.0001	<0.0001	0.0007	<0.0001	0.0001
Magnesium (Mg)	<0.1	<0.1	<0.1	-	<0.1	-
Titanium (Ti)	<0.1	<0.1	<0.1	-	<0.1	-

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To be continued

III. Test Results Food Simulant: Artificial tap water (Prepare according DIN 10531 Clause 4.2.2.2)

Tested Component	Result 1st test (mg/kg)	Result 2nd test (mg/kg)	Result1st test +Result 2ndtest (mg/kg)	7*Limit (mg/kg)	Result 3rd test (mg/kg)	Limit (mg/kg)
	(6)	(6)	(6)		(6)	
Silver (Ag)	<0.05	<0.05	<0.05	0.56	<0.05	0.08
Aluminium (Al)	1.9	2.8	4.7	35	2.4	5
Chromium (Cr)	<0.02	<0.02	<0.02	1.75	<0.02	0.250
Cobalt (Co)	<0.01	<0.01	<0.01	0.14	<0.01	0.02
Copper (Cu)	<0.5	<0.5	<0.5	28	<0.5	4
Iron (Fe)	1.8	3.0	4.8	280	6.0	40
Manganese (Mn)	<0.1	<0.1	<0.1	12.6	<0.1	1.8
Molybdenum(Mo)	<0.02	<0.02	<0.02	0.84	<0.02	0.12
Nickel (Ni)	<0.1	<0.1	<0.1	0.98	<0.1	0.14
Tin (Sn)	<10	<10	<10	700	<10	100
Vanadium (V)	<0.005	<0.005	<0.005	0.07	<0.005	0.01
Zinc (Zn)	<1	<1	<1	35	<1	5
Antimony (Sb)	<0.01	<0.01	<0.01	0.28	<0.01	0.04
Arsenic (As)	0.010	<0.001	0.010	0.014	<0.001	0.002
Barium (Ba)	<0.1	<0.1	<0.1	8.4	<0.1	1.2
Beryllium (Be)	<0.01	<0.01	<0.01	0.07	<0.01	0.01
Cadmium (Cd)	<0.001	<0.001	<0.001	0.035	<0.001	0.005
Lead (Pb)	<0.005	<0.005	<0.005	0.070	<0.005	0.010
Lithium (Li)	<0.010	<0.010	<0.010	0.336	<0.010	0.048
Mercury (Hg)	<0.003	<0.003	<0.003	0.021	<0.003	0.003
Thallium (Tl)	<0.0001	<0.0001	<0.0001	0.0007	<0.0001	0.0001
Magnesium (Mg)	<0.1	<0.1	<0.1	-	<0.1	-
Titanium (Ti)	<0.1	<0.1	<0.1	-	<0.1	-

Remark: 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 test shouldn't exceed the limit.

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To be continued

Test Sequence

12) Leachable Lead And Cadmium And Cobalt Content

As per §64 LFGB B80.03-1 and B80.03-2, by Atomic Absorption Spectrophotometric (AAS) or Inductively Coupled Argon Plasma (ICP) analysis.

I. Test Results

Tested Component	Volume of leaching Solution (mL)	Result Lead (ppm, mg/dm^2)	Result Cadmium (ppm, mg/dm^2)	Result Cobalt (ppm)
(7)	760	<0.05	<0.03	<0.03
(8)	230	<0.05	<0.03	<0.03
	Limit (hollowware):	4.0	0.3	0.05

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To be continued

Photos

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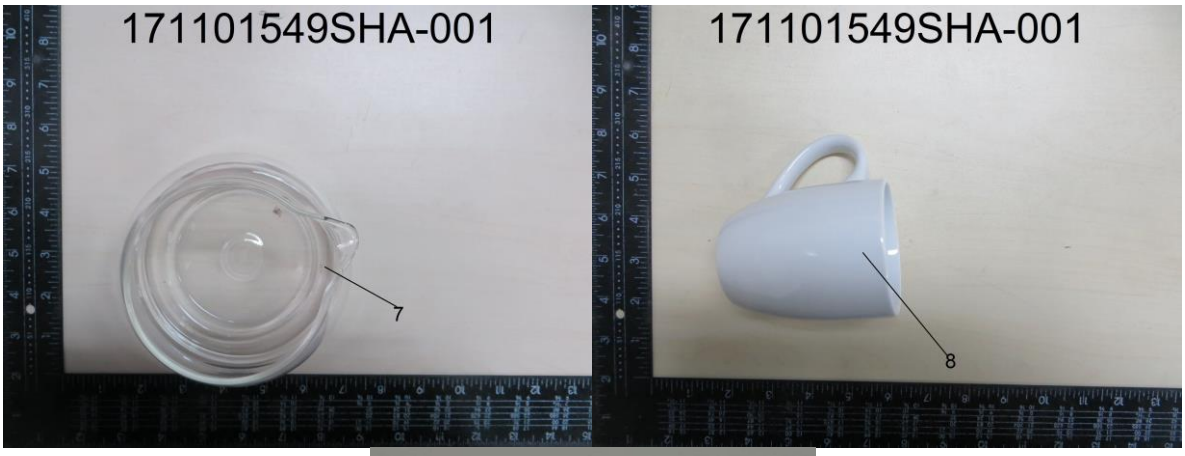
To be continued

Photos



The above photo was provided by client and we are not responsible for the photo.

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Date sample received：Nov 17, 2017; Dec 21, 2018;

Testing period：Nov 17, 2017 To Dec 25, 2017; Dec 21, 2018 to Dec 27, 2018;

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End of Report