

Test Report

Number: 200502098SHA-001(S1)

Applicant: Ningbo Symay Electrical Appliances ENTERPRISE Co, Ltd
18 Yan Tang He Road, Daqi Sub District, BeiLun District,
Ningbo City, Zhejiang Province, PRC

Date: Mar 16, 2021
**THIS IS TO SUPERSEDE REPORT
NO. 2005020968SHA-001
DATED Aug 27, 2020**

Sample Description:

Item Name : **Coffee maker**
Tested Model : CM-501E
Reference Model : CM-101 Series, CM-102 Series, CM-103 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-115 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-126 Series, CM-127 Series, CM-128 Series,
CM-129 Series, CM-130 Series, CM-131 Series, CM-132 Series,
CM-135 Series, CM-136 Series, CM-137 Series, CM-138 Series,
CM-202 Series, CM-203 Series, CM-301 Series, CM-302 Series,
CM-501 Series, CM-209 Series, CM-503 Series, CM-505 Series,
BV-1500TD Series, BV-1500TS Series, GCM3180
Test part : A1) Black PP; A2) White PP; A3) Yellow PP; A4) Purple PP; A5) Pink PP;
A6) Blue PP; A7) Green PP; A8) Grey PP; A9) Red PP; A10) Orange PP;
2) Transparent brown PP(PSC); 3) Transparent brown PSU; 4) Black PA 66+GF;
5) White PET; 6) Transparent silicone; 7) Aluminium Alloy tube
8) Silvery SUS 304; 9) Silvery SUS 201; 10) Transparent glass
11) Transparent PP; 12) Grey silicone

Tests Conducted:

As requested by the applicant, for details refer to attached page(s).

To be continued

Authorized By:
For Intertek Testing Services Ltd., Shanghai



Jonny Jing
Operation Manager



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Tests conducted:

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

- 1) F.D.A. Regulation On Polypropylene
- 2) F.D.A. Regulation On Polyester Resin, Cross-Linked
- 3) F.D.A. Regulation on Polysulfone resins
- 4) F.D.A. Regulation on Mineral Reinforced Nylon Resins
- 5) F.D.A. Regulation On Polyethylene Phthalate Polymers
- 6) F.D.A. Regulation On Rubber
- 7) F.D.A. Regulation On Closures With Sealing Gaskets For Food Containers
- 8) FDA GRAS Total Chromium (Cr) Content
- 9) FDA/GRAS Aluminium Alloys Test
- 10) Leachable Lead And Cadmium Content - Internal Surface

Tests Conclusion:

<u>Tested Sample</u>	<u>Standard</u>	<u>Result</u>
(A1-A10); (11)	U.S. 21 CFR F.D.A. regulation part 177.1520 clauses (c)(1.1a and 1.1b) on polypropylene	Pass
(2)	U.S. 21 CFR F.D.A. regulation part 177.2420 clause (c) on polyester resin, cross-linked	Pass
(3)	U.S. F.D.A. Regulation 21 CFR Part 177.1655 on Polysulfone resins	Pass
(4)	U.S. F.D.A. Regulation 21 CFR Part 177.2355 clauses c on mineral reinforced nylon resins	Pass
(5)	U.S F.D.A. regulation 21 CFR part 177.1630 on Polyethylene Phthalate Polymers	Pass
(6)	U.S. 21 CFR F.D.A. Regulation part 177.2600 – rubber articles intended for repeated use, section (e) and (f)	Pass
(12)	U.S. 21 CFR F.D.A. regulation part 177.1210 clause (c) chloroform soluble extractive on closures with sealing gaskets for food containers	Pass
(8-9)	FDA General Recognized As Safe (GRAS)	Pass
(7)	FDA General Recognized As Safe (GRAS) Aluminium Alloys Test	Pass
(10)	U.S. F.D.A. Compliance Policy Guides 7117.06(2005) and 7117.07(2005) on leachable lead and cadmium for ceramic ware	See comment

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1) Test For F.D.A. Regulation On Polypropylene

As per the U.S. 21 CFR Food And Drug Administration part 177.1520 clauses (c)(1.1a and 1.1b) and (d) with modification on density and melting point.

	(A1)	(A2)	<u>Result</u>			<u>Limit</u>
			(A3)	(A4)	(A5)	
(A) Density (by sink float method)	0.888	0.889	0.895	0.904	0.898	0.880 - 0.913
(B) Melting point, °C (by melting point apparatus)	166.5	164.3	163.8	164.1	164.5	160 - 180 (1.1a) 150 - 180 (1.1b)
(C) Maximum extractable fraction in n-hexane, % (w/w)	<1.0	<1.0	<1.0	<1.0	<1.0	6.4
(D) Maximum extractable fraction in xylene, % (w/w)	2.1	1.8	1.6	1.2	1.1	9.8

	(A6)	(A7)	<u>Result</u>			<u>Limit</u>
			(A8)	(A9)	(A10)	
(A) Density (by sink float method)	0.910	0.910	0.905	0.895	0.898	0.880 - 0.913
(B) Melting point, °C (by melting point apparatus)	164.2	164.0	164.1	164.3	164.3	160 - 180 (1.1a) 150 - 180 (1.1b)
(C) Maximum extractable fraction in n-hexane, % (w/w)	<1.0	<1.0	<1.0	<1.0	<1.0	6.4
(D) Maximum extractable fraction in xylene, % (w/w)	3.9	3.6	1.8	1.9	1.1	9.8

	<u>Result</u>			<u>Limit</u>
	(11)			
(A) Density (by sink float method)	0.901			0.880 - 0.913
(B) Melting point, °C (by melting point apparatus)	165			160 - 180 (1.1a) 150 - 180 (1.1b)
(C) Maximum extractable fraction in n-hexane, % (w/w)	<1.0			6.4
(D) Maximum extractable fraction in xylene, % (w/w)	2.0			9.8

Remark: < = Less than

2) Test For F.D.A. Regulation On Polyester Resin, Cross-Linked

As per the U.S. CFR Food And Drugs Administration part 177.2420 clause (c).

I. Condition of use

B. Boiling water sterilized

II. Test item

	<u>Result</u>	<u>Limit</u>
	(2)	
(1) Chloroform soluble extractive residue in water extractant, mg/in ²	<0.1	0.1

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3) Test for F.D.A. Regulation on Polysulfone resins

As per the U.S. Food and Drug Administration 21 CFR Part 177.1655.

	<u>Result</u> (3)	<u>Limit</u>
(A) Total extractives in distilled water, mg/in ²	<0.05	0.05
(B) Total extractives in 50% ethyl alcohol, mg/in ²	<0.05	0.05
(C) Total extractives in 3% acetic acid, mg/in ²	<0.05	0.05
(D) Total extractives in n-heptane, mg/in ²	<0.05	0.05

4) Test for F.D.A. Regulation on Mineral Reinforced Nylon Resins

As per the U.S. Food and Drug Administration 21 CFR Part 177.2355 clauses c.

<u>Test Item</u>	<u>Result</u> (mg/in ²) (4)	<u>Reporting limit</u> (mg/in ²)	<u>Limit</u> (mg/in ²)
Total extractives in distilled water, mg/in ²	1.3	1	5
Total extractives in 50% ethyl alcohol, mg/in ²	1.0	1	5
The ash after ignition of total extractives In distilled water, mg/in ²	<0.1	0.1	0.5
The ash after ignition of total extractives in 50% ethyl alcohol, mg/in ²	<0.1	0.1	0.5

Remark: ND=Not Detected

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5) Test For F.D.A. Regulation On Polyethylene Phthalate Polymers

As per the U.S. Food And Drugs Administration 21 CFR part 177.1630.

I. Condition of use:

(1) For packaging, transporting, or holding food, excluding alcoholic beverages, at temperature not to exceed 250°F (121°C).

II. Test item:

	<u>Result (mg/in²)</u>	<u>Limit (mg/in²)</u>
(1) Chloroform soluble extractive residue in water extractant	(5) <0.1	0.5

Remark: < = Less Than

6) Test For F.D.A. Regulation On Rubber

With reference to the U.S. 21 CFR food and drug administration part 177.2600 - rubber articles intended for repeated use, section (e) and (f).

<u>Result</u>	<u>Water extractable Content</u> (mg/in ²)
- First 7 hours extraction	(6) <1.0
- Succeeding 2 hours extraction	<0.1

<u>Limit (max)</u>	<u>Water extractable Content</u> (mg/in ²)
- First 7 hours extraction	20
- Succeeding 2 hours extraction	1

Remark: < = Less than

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7) Test For F.D.A. Regulation On Closures With Sealing Gaskets For Food Containers

As per the U.S. 21 CFR Food And Drug Administration part 177.1210, clause (c).

I. Condition of use

A. Boiling water sterilized

II. Test item

	<u>Result</u> (E)	<u>Limit</u>
(A) Chloroform soluble extractive in water, (mg/L)	<20	50
Remark : < = Less than		

8) FDA GRAS Total Chromium (Cr) Content

With reference to FDA Generally Regarded As Safe (GRAS) guidelines, acid digestion was used and total Chromium was detected by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES).

<u>Tested Sample / Component</u>	<u>Result in (% (w/w))</u>	<u>Limit in (% (w/w))</u>
(8)	18.13	16.00 (min.)
(9)	18.28	16.00 (min.)

9) FDA/GRAS Aluminium / Aluminium Alloys Test

With reference to NSF/ANSI 51 " Food equipment materials", by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES) analysis.

<u>Elements</u>	<u>Result (% (w/w))</u> (7)
Silicon (Si)	0.45
Iron (Fe)	0.26
Copper (Cu)	0.03
Manganese (Mn)	0.01
Magnesium (Mg)	0.54
Chromium (Cr)	<0.01
Zinc (Zn)	0.04
Titanium (Ti)	<0.01
Others (Total)	0.03
Others (Each)	0.02
Gallium (Ga) / Vanadium (V)	0.01
Aluminium (Al)	98.64

Remark: According to the above composition result, the tested sample/component is most closely resemble 6XXX series alloys.

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10) Leachable Lead And Cadmium Content - Internal Surface

With reference to U.S. F.D.A. C.P.G. 7117.06(2005), 7117.07(2005) and A.O.A.C. official methods of analysis 18th edition (2005) method 973.32 by atomic absorption spectrophotometric analysis.

<u>Specimen</u>	<u>Volume of leaching solution</u>	<u>Lead</u>	<u>Cadmium</u>
(10)	<u>(mL)</u>	<u>(ppm)</u>	<u>(ppm)</u>
(A)	1800	<0.05	<0.03
(B)	1800	<0.05	<0.03
(C)	1800	<0.05	<0.03
(D)	1800	<0.05	<0.03
(E)	1800	<0.05	<0.03
(F)	1800	<0.05	<0.03
	Limit: (small hollowware)	1.0	0.5

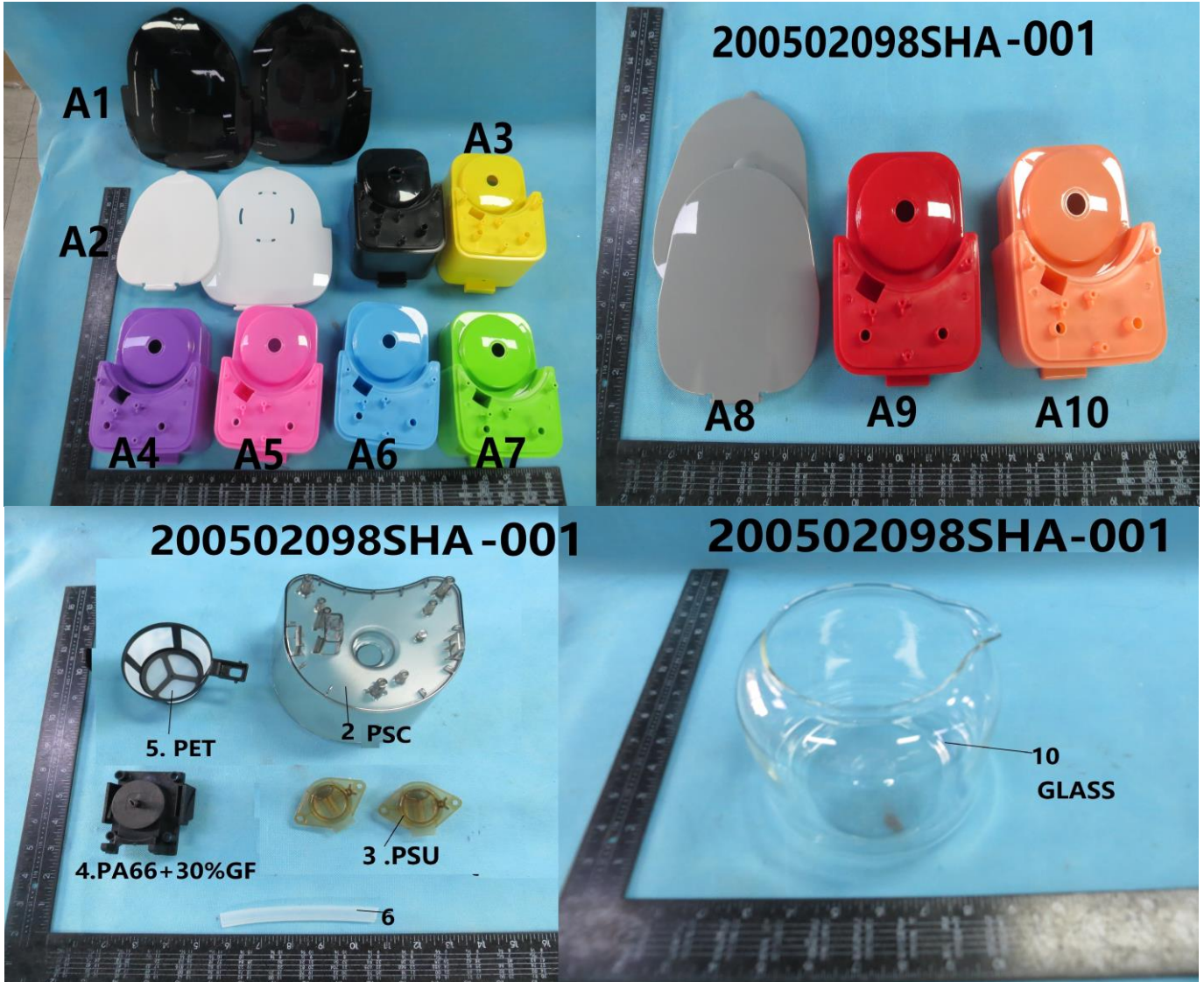
Remark : ppm = Parts per million = mg/L

Comment: The submitted sample does not subject to the scope of the standard. The result and the limit are for reference only.

To be continued



Photos



To be continued

Photos



To be continued

Photos



Date Sample Received: Jun 01, 2020; July 08, 2020; Mar 08, 2021;
Testing Period: Jun 01, 2020 to Jun 15, 2020; July 08, 2020 to July 21, 2020; Mar 08, 2021 to Mar 12, 2021

End of This Report

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