



Technical Report No. 64.165.14.02490.01E

Rev. 00

Dated 2014-09-24

Applicant:	Precision Shunde Electric Appliance Factory No.63,Dafu Road,Ronggui Town,Shunde Region,Foshan City, Guangdong,P.R.China
Product Description:	The submitted sample(s) was/were identified and described by client as: Electric Appliances Tested model: S-892,JM1020,HB968SC,J8882S,HM723-MWRB,UM-1033, CH1110SG,EK-120
Client reference information:	According to declaration from client, The tested materials covered by the report were declared by the manufacturer to be used on the models listed in annex 01.
Purpose of examination:	(1) For material: plastics or coating - Overall migration test for compliance with Regulation (EU) No.10/2011 for plastic materials and articles intended to come into contact with foodstuffs, with reference to: EN1186 : Part 3 : 2002 (aqueous food stimulants by total immersion method), EN1186: Part 14: 2002 (substitute test). (2) For material: plastics or coating - Specific Migration of Primary Aromatic Amine for compliance with the Regulation (EU) No. 10/2011. - Solvent extraction, followed by UV-Vis analysis (3) For material: plastics or coating - Specific Migration of Heavy metal (Barium, Cobalt, Copper, Iron, Lithium, Manganese, Zinc) The heavy metal content of extracting solution was then analyzed using Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES). (4) For material: acrylonitrile polymer - Specific Migration of Acrylonitrile for compliance with the Regulation (EU) No.10/2011. - Solvent extraction, followed by Headspace GC/MS analysis. (5) For material: ABS - Specific migration of of 1,3-butadiene - As specified in Regulation (EU) No. 10/2011, followed by screening test using head space GCMS.

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Purpose of examination:

(6) For material: POM

- Specific Migration of Formaldehyde for compliance with the Regulation (EU) No. 10/2011.
- The heavy metal content of extracting solution was then analyzed using UV-Vis.

(7) For material: PA66

- Specific migration of Hexamethylenediamine for compliance with the Regulation (EU) No.10/2011.
- Solvent extraction, followed by GC/MS analysis.

(8) For material: PVC/PU/plastic O-ring and lid

- To determine the phthalates content for compliance with Directive Regulation (EU) No.10/2011 relating to plastic materials and articles intended to come into contact with foodstuffs.
- Solvent extraction, followed by analysis using GC-MS.

(9) For material: PVC/PU/plastic O-ring and lid

- To determine the specific migration of phthalates for compliance with Regulation (EU) No.10/2011 relating to plastic materials and articles intended to come into contact with foodstuffs, with reference to:
EN1186 : Part 3 : 2002 (aqueous food stimulants by total immersion method).
EN1186: Part 14: 2002 (substitute test).

(10) Total Bisphenol A content

- Total Bisphenol A test for according to the French Law No. 2012-1442.
- Solvent extraction, followed by LC/MS/MS.

(11) For material: silicone

- Overall migration test for compliance with French Arrêté du 25 novembre 1992 for silicone products intended to come into contact with foodstuffs.
- As specified in 82/711/EEC, 85/572/EEC and 97/48/EC Directives; with reference to
EN1186 : Part 3 : 2002 (aqueous food stimulants by total immersion method).

(12) For material: silicone

- Peroxide value for compliance with French Arrêté du 25 novembre 1992 for silicone materials intended to come in contact with foodstuffs.
- With reference to French Arrêté du 25 novembre 1992

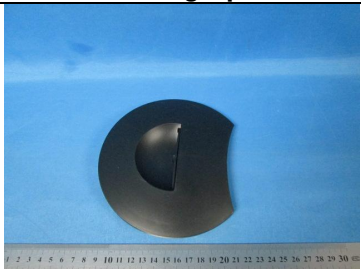
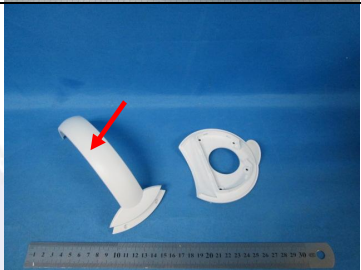
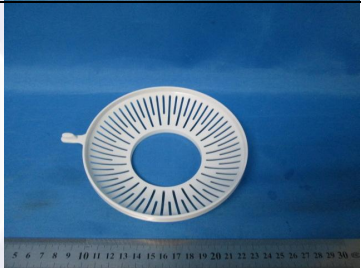
(13) For material: silicone

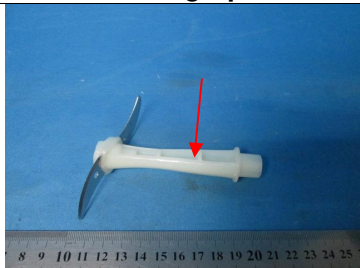
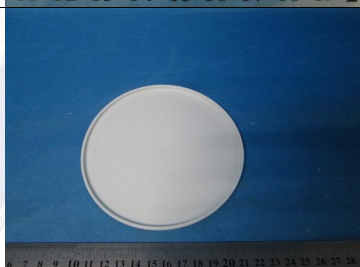
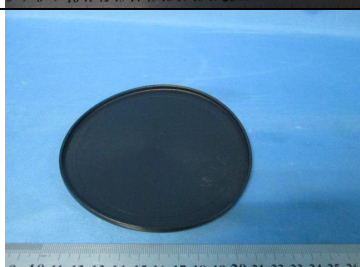
- Migration of Organotin (As tin)for compliance with French Arrêté du 25 novembre 1992 for silicone materials intended to come in contact with foodstuffs.
- With reference to French Arrêté du 25 novembre 1992

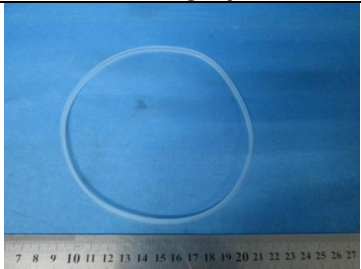
Purpose of examination:	(14) For material: rubber/silicone - Volatile Organic Matters for compliance with French Arrêté du 25 novembre 1992 for silicone materials intended to come in contact with foodstuffs. - With reference to French Arrêté du 25 novembre 1992 (15) For material: ceramics, glass - Extractable Lead and Cadmium for compliance with French recommendation DGCCRF 2004-64. - Extractable Cobalt with reference to Germany Bavarian State Ministry of Justice and Consumer Protection. - With reference to EN 1388: Part 1: 1996 and EN 1388: Part 2: 1996. - The submitted sample was filled with 4% acetic acid at 22°C for 24 hours, followed by analysis using Atomic Absorption Spectrometry (AAS) and/or Inductively Coupled Plasma Spectrometry (ICP). (16) For material: aluminium and aluminium alloy - Composition analysis for compliance with French Arrêté du 27 août 1987. - Acid digestion, followed by analysis using Atomic Absorption Spectrometry (AAS) and Inductively Coupled Plasma Spectrometry (ICP). (17) For material: stainless steel - Composition analysis for compliance with French Arrêté du 13 Janvier 1976. - Acid digestion, followed by analysis using Atomic Absorption Spectrometry (AAS) and/or Inductively Coupled Plasma Spectrometry (ICP). (18) Sensory test - With reference to ISO 13302 Scoring Test and ISO 4120 Test condition : Working condition Test Media : Distilled water No. of panelist : Six
Test Result:	Refer to next page(s)
Conclusion:	When tested as specified, the submitted sample(s) 018-025 was/were found to comply with the respective requirement(s) for the tested item(s) as stated in French Décret n° 92-631, French Décret n° 2007-766 and French recommendation DGCCRF 2004-64 and the General Requirement in EU Regulation No. 1935/2004 Article 3(1) on materials and articles intended to come into contact with food.

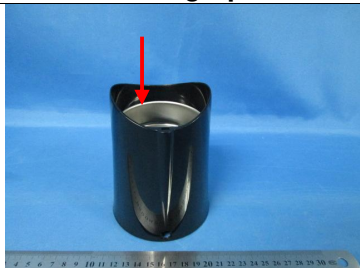
1. Description

1.1 Sample Description

Sample	Color and Description	Photograph
001	Black plastic shell (PP)	
002	White plastic handle (PP)	
003	White plastic shell (ABS)	
004	Black plastic shell (ABS)	
005	Transparent plastic cover (AS)	

Sample	Color and Description	Photograph
006	Beige plastic rod (PA66)	
007	White plastic cover (POM)	
008	Black plastic shell (PA66+20%GF)	
009	White plastic sheet (PE)	
010	Black plastic sheet (PE)	

Sample	Color and Description	Photograph
011	Translucent silicone ring (Silicone)	
012	Transparent glass cup (Glass)	
013	Silvery metal rivet (Al alloy)	
014	Silvery metal screw (SUS 304)	
015	Silvery metal blade (SUS301)	

Sample	Color and Description	Photograph
016	Silvery metal shell (SUS430)	
017	Silvery metal blade (SUS420J2)	
018	Finished product (Model: S-892)	
019	Finished product (Model: JM1020)	
020	Finished product (Model: HB968SC)	

Sample	Color and Description	Photograph
021	Finished product (Model: J8882S)	
022	Finished product (Model: HM723-MWRB+Blender)	
023	Finished product (Model: UM-1033)	
024	Finished product (Model: CH1110SG)	
025	Finished product (Model: EK-120)	



2 Order

2.1 Date of Purchase Order

2014-07-30

2.2 Receipt Date of Test Sample, Location

2014-07-30, 2014-08-19, 2014-08-20, Guangzhou

2.3 Date of Testing

2014-07-30 to 2014-08-08, 2014-08-19 to 2014-09-03

2.4 Location of Testing

The test was performed in TÜV SÜD Hong Kong Ltd. & TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch Chemical lab and the test results were reviewed at TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch.



3. Test Result

3.1 Overall migration test

- With reference to EN 1186 : Part 3 & 14 .

Simulant Used	Test Condition	Overall Migration [mg/dm ²]		Maximum Permissible Limit [mg/dm ²]
		001	002	
3% Acetic Acid	100°C for 2 hours	< 3	6.6	10

Simulant Used	Test Condition	Overall Migration [mg/dm ²]	Maximum Permissible Limit [mg/dm ²]
		007	
DI water	100°C for 2 hours	< 3	10

Simulant Used	Test Condition	Overall Migration [mg/dm ²]			Maximum Permissible Limit [mg/dm ²]
		003	004	005	
3% Acetic Acid	70°C for 2 hours	< 3	< 3	< 3	10
50% Ethanol	70°C for 2 hours	< 3	< 3	< 3	10
95% Ethanol	60°C for 2 hours	3.1	< 3	< 3	10
Isooctane	40°C for 0.5 hour	< 3	< 3	< 3	10

Simulant Used	Test Condition	Overall Migration [mg/dm ²]			Maximum Permissible Limit [mg/dm ²]
		006	008	009	
3% Acetic Acid	70°C for 2 hours	5.3	< 3	< 3	10
50% Ethanol	70°C for 2 hours	5.8	< 3	< 3	10
95% Ethanol	60°C for 2 hours	< 3	3.6	< 3	10
Isooctane	40°C for 0.5 hour	< 3	< 3	< 3	10

Simulant Used	Test Condition	Overall Migration [mg/dm ²]	Maximum Permissible Limit [mg/dm ²]
		010	
3% Acetic Acid	70°C for 2 hours	< 3	10
50% Ethanol	70°C for 2 hours	< 3	10
95% Ethanol	60°C for 2 hours	< 3	10
Isooctane	40°C for 0.5 hour	< 3	10

- Note:
1. "mg/dm²" denotes milligram per square decimeter
 2. "°C" denotes degree Celsius
 3. "<" denotes less than
 4. The specification was quoted from Regulation (EU) No.10/2011

3.2 Primary Aromatic Amine

- With reference to "Kunststoffe im Lebensmittelverkehr, Book 2, Teil B II".

Test Item(s)	Result(s) [mg/kg]			Maximum Permissible Limit [mg/kg]
	001	004	006	
Primary Aromatic Amine	< 0.01	< 0.01	< 0.01	0.01

Test Item(s)	Result(s) [mg/kg]		Maximum Permissible Limit [mg/kg]
	008	010	
Primary Aromatic Amine	< 0.01	< 0.01	0.01

Note: 1. "mg/kg" denotes milligram per kilogram
2. "<" denotes less than

3.3 Specific Migration of Heavy metal (Barium, Cobalt, Copper, Iron, Lithium, Manganese, Zinc)

- The sample 001~002 were filled with 3% acetic acid at 100°C for 2 hours, sample 003~006, 008~010 were filled with 3% acetic acid at 70°C for 2 hours, sample 007 were filled with distilled water at 100°C for 2 hours.

-Followed by ICP-OES analysis.

Test items	Results [mg/kg]			Reporting limit [mg/kg]	Recommended Limit [mg/kg]
	001	002	003		
Extractable Barium	N.D.	N.D.	N.D.	0.1	1
Extractable Cobalt	N.D.	N.D.	N.D.	0.05	0.05
Extractable Copper	N.D.	N.D.	N.D.	0.10	5
Extractable Iron	N.D.	N.D.	N.D.	1.0	48
Extractable Lithium	N.D.	N.D.	N.D.	0.10	0.6
Extractable Manganese	N.D.	N.D.	N.D.	0.05	0.6
Extractable Zinc	N.D.	N.D.	N.D.	1.0	25

Notes: 1. "mg/kg" denotes milligram per kilogram
2. "N.D." denotes not detected (less than reporting limit)
3. "<" denotes less than
4. The specification was quoted from Regulation (EU) No.10/2011

Test items	Results [mg/kg]			Reporting limit [mg/kg]	Recommended Limit [mg/kg]
	004	005	006		
Extractable Barium	N.D.	N.D.	N.D.	0.1	1
Extractable Cobalt	N.D.	N.D.	N.D.	0.05	0.05
Extractable Copper	N.D.	N.D.	N.D.	0.10	5
Extractable Iron	N.D.	N.D.	N.D.	1.0	48
Extractable Lithium	N.D.	N.D.	N.D.	0.10	0.6
Extractable Manganese	N.D.	N.D.	N.D.	0.05	0.6
Extractable Zinc	N.D.	N.D.	N.D.	1.0	25

Test items	Results [mg/kg]			Reporting limit [mg/kg]	Recommended Limit [mg/kg]
	007	008	009		
Extractable Barium	N.D.	N.D.	N.D.	0.1	1
Extractable Cobalt	N.D.	N.D.	N.D.	0.05	0.05
Extractable Copper	N.D.	N.D.	N.D.	0.10	5
Extractable Iron	N.D.	N.D.	N.D.	1.0	48
Extractable Lithium	N.D.	N.D.	N.D.	0.10	0.6
Extractable Manganese	N.D.	N.D.	N.D.	0.05	0.6
Extractable Zinc	N.D.	N.D.	N.D.	1.0	25

Test items	Results [mg/kg]	Reporting limit [mg/kg]	Recommended Limit [mg/kg]
	010		
Extractable Barium	N.D.	0.1	1
Extractable Cobalt	N.D.	0.05	0.05
Extractable Copper	N.D.	0.10	5
Extractable Iron	N.D.	1.0	48
Extractable Lithium	N.D.	0.10	0.6
Extractable Manganese	N.D.	0.05	0.6
Extractable Zinc	N.D.	1.0	25

- Notes:
1. "mg/kg" denotes milligram per kilogram
 2. "N.D." denotes not detected (less than reporting limit)
 3. "<" denotes less than
 4. The specification was quoted from Regulation (EU) No.10/2011

3.4 Specific Migration of Acrylonitrile

- The sample was filled with 3% acetic acid at 70°C for 2 hours.
Followed by Headspace GC/MS analysis.

Test	Result(s) [mg/kg]			Maximum Permissible Limit [mg/kg]
	003	004	005	
Migration of Acrylonitrile	< 0.01	< 0.01	< 0.01	Not Detected with Detection Limit 0.01

Notes: 1. "mg/kg" denotes milligram per kilogram
2. °C denotes degree Celsius
3. "<" denotes less than
4. The specification was quoted from Regulation (EU) No.10/2011

3.5 Specific migration of 1,3-butadiene

- The sample was filled with with 3% acetic acid at 70 °C for 2 Hours
Followed by Head space GC/MS analysis.

Test Item(s)	Result(s) [mg/kg]		Maximum Permissible Limit [mg/kg]
	003	004	
Migration of 1,3-butadiene	< 0.01	< 0.01	Not Detected with Detection Limit 0.01

Note: 1. "mg/kg" denotes milligram per kilogram
2. °C denotes degree Celsius
3. "<" denotes less than
4. The specification was quoted from Regulation (EU) No.10/2011

3.6 Specific migration of Formaldehyde

- Solvent extraction, followed by derivation and measured by UV-Vis Spectrometry

Test Item(s)	Result(s) [mg/kg]	Maximum Permissible Limit [mg/kg]
	007	
Extractable Formaldehyde	< 3.0	15

Note 1. "mg/kg" denotes milligram per kilogram
2. "<" denotes less than

3.7 Specific Migration of hexamethylenediamine

- The sample was filled with 3% acetic acid at 70°C for 2 hours.
Followed by GC/MS analysis.

Test items	Result(s) [mg/kg]		Maximum Permissible Limit [mg/kg]
	006	008	
Migration of hexamethylenediamine	< 2	< 2	2.4

Notes: 1. "mg/kg" denotes milligram per kilogram
2. °C denotes degree Celsius
3. "<" denotes less than
4. The specification was quoted from Regulation (EU) No.10/2011

3.8 Phthalates Content Test Result

Test conducted: Phthalates (BBP, DEHP, DBP, DINP, DIDP) Content Test

Test method: Solvent extraction with reference to US EPA 3550B and detection with GC/MS.

Test Item	CAS No.	MDL	Result(s)			Maximum Permissible Limit
			003	004	005	
Benzylbutyl Phthalate (BBP)	85-68-7	0.005%	N.D.	N.D.	N.D.	0.1%
Dibutyl Phthalate (DBP)	84-74-2	0.005%	N.D.	N.D.	N.D.	0.05%
Di(2-ethylhexyl) Phthalate (DEHP)	117-81-7	0.005%	N.D.	N.D.	N.D.	0.1%
Diisononyl Phthalate (DINP)	68515-48-0	0.005%	N.D.	N.D.	N.D.	0.1%
Diisodecyl Phthalate (DIDP)	26761-40-0	0.005%	N.D.	N.D.	N.D.	0.1%

Note: 1. "N.D." denotes "Not Detected" (Less than MDL)
2. "MDL" denotes method detection limit
3. "%" denotes percentage of weight by weight

Test Item	CAS No.	MDL	Result(s)			Maximum Permissible Limit
			006	008	009	
Benzylbutyl Phthalate (BBP)	85-68-7	0.005%	N.D.	N.D.	N.D.	0.1%
Dibutyl Phthalate (DBP)	84-74-2	0.005%	N.D.	N.D.	N.D.	0.05%
Di(2-ethylhexyl) Phthalate (DEHP)	117-81-7	0.005%	N.D.	N.D.	N.D.	0.1%
Diisononyl Phthalate (DINP)	68515-48-0	0.005%	N.D.	N.D.	N.D.	0.1%
Diisodecyl Phthalate (DIDP)	26761-40-0	0.005%	N.D.	N.D.	N.D.	0.1%

Test Item	CAS No.	MDL	Result(s)	Maximum Permissible Limit
			010	
Benzylbutyl Phthalate (BBP)	85-68-7	0.005%	N.D.	0.1%
Dibutyl Phthalate (DBP)	84-74-2	0.005%	N.D.	0.05%
Di(2-ethylhexyl) Phthalate (DEHP)	117-81-7	0.005%	N.D.	0.1%
Diisononyl Phthalate (DINP)	68515-48-0	0.005%	N.D.	0.1%
Diisodecyl Phthalate (DIDP)	26761-40-0	0.005%	N.D.	0.1%

Note: 1. "N.D." denotes "Not Detected" (Less than MDL)
2. "MDL" denotes method detection limit
3. "%" denotes percentage of weight by weight

3.9 Specific Migration of Phthalates

Test conducted: SPECIFIC MIGRATION OF PHTHALATES (BBP, DEHP, DBP, DINP, DIDP, DEHA, DEHTP) CONTENT TEST

Test method: As specified in Regulation (EU) No. 10/2011, the sample(s) were migrated with food simulant, followed by Gas Chromatography/Mass Spectrometry (GC-MS) analysis.

3.9.1 Testing condition and simulant: 95% Ethanol at 60°C for 2 hours.

Test Item	Result [mg/kg]		Maximum Permissible Limit [mg/kg]
	Sample 003	Sample 004	
Dibutyl Phthalate (DBP)	< 0.10	< 0.10	0.3
Benzyl butyl Phthalate (BBP)	< 0.10	< 0.10	30
Bis (2-ethylhexyl) Phthalate (DEHP)	< 0.10	< 0.10	1.5
Di-isononyl Phthalate (DINP)	< 0.10	< 0.10	Total 9
Di-isodecyl Phthalate (DIDP)	< 0.10	< 0.10	
Adipic acid, bis (2-ethylhexyl) ester (DEHA)	< 0.10	< 0.10	18
Bis(2-ethylhexyl) Terephthalate (DEHTP)	< 0.10	< 0.10	60

Test Item	Result [mg/kg]		Maximum Permissible Limit [mg/kg]
	Sample 005	Sample 006	
Dibutyl Phthalate (DBP)	< 0.10	< 0.10	0.3
Benzyl butyl Phthalate (BBP)	< 0.10	< 0.10	30
Bis (2-ethylhexyl) Phthalate (DEHP)	< 0.10	< 0.10	1.5
Di-isononyl Phthalate (DINP)	< 0.10	< 0.10	Total 9
Di-isodecyl Phthalate (DIDP)	< 0.10	< 0.10	
Adipic acid, bis (2-ethylhexyl) ester (DEHA)	< 0.10	0.52	18
Bis(2-ethylhexyl) Terephthalate (DEHTP)	< 0.10	0.19	60

Note:

- “°C” denotes degree Celsius
- “mg/kg” denotes milligram per kilogram foodstuff.
- “<” denotes less than
- The specification was quoted from Regulation (EU) No. 10/2011

Test Item	Result [mg/kg]		Maximum Permissible Limit [mg/kg]
	Sample 008	Sample 009	
Dibutyl Phthalate (DBP)	< 0.10	< 0.10	0.3
Benzyl butyl Phthalate (BBP)	< 0.10	< 0.10	30
Bis (2-ethylhexyl) Phthalate (DEHP)	< 0.10	< 0.10	1.5
Di-isononyl Phthalate (DINP)	< 0.10	< 0.10	Total 9
Di-isodecyl Phthalate (DIDP)	< 0.10	< 0.10	
Adipic acid, bis (2-ethylhexyl) ester (DEHA)	< 0.10	< 0.10	18
Bis(2-ethylhexyl) Terephthalate (DEHTP)	< 0.10	0.17	60

Test Item	Result [mg/kg]	Maximum Permissible Limit [mg/kg]
	Sample 010	
Dibutyl Phthalate (DBP)	< 0.10	0.3
Benzyl butyl Phthalate (BBP)	< 0.10	30
Bis (2-ethylhexyl) Phthalate (DEHP)	< 0.10	1.5
Di-isononyl Phthalate (DINP)	< 0.10	Total 9
Di-isodecyl Phthalate (DIDP)	< 0.10	
Adipic acid, bis (2-ethylhexyl) ester (DEHA)	< 0.10	18
Bis(2-ethylhexyl) Terephthalate (DEHTP)	0.20	60

Note:

- “°C” denotes degree Celsius
- “mg/kg” denotes milligram per kilogram foodstuff.
- “<” denotes less than
- The specification was quoted from Regulation (EU) No. 10/2011

3.9.2 Testing condition and simulant: 95% Ethanol at 40°C for 0.5 hour.

Test Item	Result [mg/kg]		Maximum Permissible Limit [mg/kg]
	Sample 003	Sample 004	
Dibutyl Phthalate (DBP)	< 0.10	< 0.10	0.3
Benzyl butyl Phthalate (BBP)	< 0.10	< 0.10	30
Bis (2-ethylhexyl) Phthalate (DEHP)	< 0.10	< 0.10	1.5
Di-isononyl Phthalate (DINP)	< 0.10	< 0.10	Total 9
Di-isodecyl Phthalate (DIDP)	< 0.10	< 0.10	
Adipic acid, bis (2-ethylhexyl) ester (DEHA)	< 0.10	0.13	18
Bis(2-ethylhexyl) Terephthalate (DEHTP)	< 0.10	< 0.10	60

Test Item	Result [mg/kg]		Maximum Permissible Limit [mg/kg]
	Sample 005	Sample 006	
Dibutyl Phthalate (DBP)	< 0.10	< 0.10	0.3
Benzyl butyl Phthalate (BBP)	< 0.10	< 0.10	30
Bis (2-ethylhexyl) Phthalate (DEHP)	< 0.10	< 0.10	1.5
Di-isononyl Phthalate (DINP)	< 0.10	< 0.10	Total 9
Di-isodecyl Phthalate (DIDP)	< 0.10	< 0.10	
Adipic acid, bis (2-ethylhexyl) ester (DEHA)	0.14	0.13	18
Bis(2-ethylhexyl) Terephthalate (DEHTP)	< 0.10	0.12	60

Note:

- “°C” denotes degree Celsius
- “mg/kg” denotes milligram per kilogram foodstuff.
- “<” denotes less than
- The specification was quoted from Regulation (EU) No. 10/2011

Test Item	Result [mg/kg]		Maximum Permissible Limit [mg/kg]
	Sample 008	Sample 009	
Dibutyl Phthalate (DBP)	< 0.10	< 0.10	0.3
Benzyl butyl Phthalate (BBP)	< 0.10	< 0.10	30
Bis (2-ethylhexyl) Phthalate (DEHP)	< 0.10	< 0.10	1.5
Di-isononyl Phthalate (DINP)	< 0.10	< 0.10	Total 9
Di-isodecyl Phthalate (DIDP)	< 0.10	< 0.10	
Adipic acid, bis (2-ethylhexyl) ester (DEHA)	< 0.10	< 0.10	18
Bis(2-ethylhexyl) Terephthalate (DEHTP)	0.12	< 0.10	60

Test Item	Result [mg/kg]	Maximum Permissible Limit [mg/kg]
	Sample 010	
Dibutyl Phthalate (DBP)	< 0.10	0.3
Benzyl butyl Phthalate (BBP)	< 0.10	30
Bis (2-ethylhexyl) Phthalate (DEHP)	< 0.10	1.5
Di-isononyl Phthalate (DINP)	< 0.10	Total 9
Di-isodecyl Phthalate (DIDP)	< 0.10	
Adipic acid, bis (2-ethylhexyl) ester (DEHA)	< 0.10	18
Bis(2-ethylhexyl) Terephthalate (DEHTP)	0.10	60

Note:

- “°C” denotes degree Celsius
- “mg/kg” denotes milligram per kilogram foodstuff.
- “<” denotes less than
- The specification was quoted from Regulation (EU) No. 10/2011

3.10 Total Bisphenol A content

- Solvent extraction, followed by LC/MS/MS.

est Item(s)	Result(s) [mg/kg]			MDL [mg/kg]	Client's requirement [mg/kg]
	003	004	005		
Total Bisphenol A	N.D.	N.D.	N.D.	0.1	Not detected

est Item(s)	Result(s) [mg/kg]			MDL [mg/kg]	Client's requirement [mg/kg]
	006	008	009		
Total Bisphenol A	N.D.	N.D.	N.D.	0.1	Not detected

est Item(s)	Result(s) [mg/kg]	MDL [mg/kg]	Client's requirement [mg/kg]
	010		
Total Bisphenol A	N.D.	0.1	Not detected

Note: 1. "mg/kg" denotes milligram per kilogram
2. N.D. denotes not detected (< MDL)
3. MDL denotes method detection limit

3.11 Overall migration test

- With reference to EN 1186 : Part 3.

Simulant Used	Test Condition	Overall Migration [mg/kg]	Maximum Permissible Limit [mg/kg]
		011	
3% Acetic Acid	100°C for 2 hours	< 10	60

Note: 1. "mg/kg" denotes milligram per kilogram
2. "mg/dm²" denotes milligram per square decimeter
3. "°C" denotes degree Celsius
4. "<" denotes less than

3.12 Peroxide Value

- With reference to French Arrêté du 25 novembre 1992

Test item	Result	Permissible Limit
	011	
Peroxide Value	Absent	Absent

3.13 Migration of Organotin

- With reference to French Arrêté du 25 novembre 1992

Test item	Result [mg/kg]	Permissible Limit [mg/kg]
	011	
Migration of organotin (As tin)	< 0.1	0.1

Note: 1. "mg/kg" denotes milligram per kilogram

2. "<" denotes less than

3.14 Volatile Organic Matters

- With reference to French Arrêté du 25 novembre 1992

Test item	Result [%]	Maximum Permissible Limit [%]
	011	
Volatile Organic Matters	< 0.1	0.5

Note: "%" denotes percentage of weight by weight

3.15 Extractable Lead, Cadmium and Cobalt

Test Item	Result(s) [mg/L]	Maximum Permissible Limit [mg/L]
	012	
Extractable Lead	< 0.10	4.0
Extractable Cadmium	< 0.01	0.3

Test Item	Result(s) [mg/L]	Recommended Limit* [mg/L]
	012	
Extractable Cobalt	< 0.05	0.1

Note: 1. "mg/L" denotes milligram per liter

2. "<" denotes less than

3. The specification was quoted from the French recommendation DGCCRF 2004-64 for article as category 2.

4. * Limits are quoted from Germany Bavarian State Ministry of Justice and Consumer Protection

3.16 Aluminium and Aluminium alloy composition test

- Acid digestion, followed by ICP-OES analysis

Aluminium:

Test Item	Composition [%]	Permissible Limit [%]
	013	
1. Silicon content	0.05	Total 1.0 maximum
2. Iron content	0.15	
3. Manganese content	0.05	0.1 maximum
4. Nickel content	< 0.02	0.1 maximum
5. Magnesium content	0.03	0.1 maximum
6. Copper content	< 0.02	0.2 maximum (if Mn<0.05% & Cr<0.05%) 0.1 maximum
7. Antimony content	< 0.02	0.05 maximum
8. Chromium content	< 0.02	0.1 maximum
9. Titanium content	< 0.02	0.15 maximum
10. Zirconium content	< 0.02	0.05 maximum
11. Zinc content	0.02	0.1 maximum
12. Strontium content	< 0.02	0.05 maximum
13. Tin content	< 0.02	0.1 maximum
14. Arsenic content	< 0.02	0.05 maximum
15. Tantalum content	< 0.02	0.05 maximum
16. Beryllium content	< 0.02	0.05 maximum
17. Thallium content	< 0.02	0.05 maximum
18. Lead content	< 0.02	0.05 maximum
19. Aluminium content	99.67	99 minimum

Note: 1. "%" denotes percentage of weight by weight

2. "<" denotes less than

3. The specification was quoted from French Arrêté du 27 août 1987.

3.17 Stainless steel composition test

- Acid digestion, followed by ICP analysis

Test item	Composition [%]		Permissible Limit [%]
	014	015	
1. Chromium content	15.0	15.1	≥ 13
2. Tantalum content	< 0.06	< 0.06	≤ 1
3. Niobium content	< 0.06	< 0.06	≤ 1
4. Zirconium content	< 0.06	< 0.06	≤ 1
5. Molybdenum content	< 0.06	< 0.06	≤ 4
6. Titanium content	< 0.06	< 0.06	≤ 4
7. Aluminium content	< 0.06	< 0.06	≤ 4
8. Copper content	1.92	0.25	≤ 4

Test item	Composition [%]		Permissible Limit [%]
	016	017	
9. Chromium content	14.1	14.4	≥ 13
10. Tantalum content	< 0.06	< 0.06	≤ 1
11. Niobium content	< 0.06	< 0.06	≤ 1
12. Zirconium content	< 0.06	< 0.06	≤ 1
13. Molybdenum content	< 0.06	< 0.06	≤ 4
14. Titanium content	< 0.06	< 0.06	≤ 4
15. Aluminium content	< 0.06	< 0.06	≤ 4
16. Copper content	0.06	0.07	≤ 4

- Note:
1. “%” denotes percentage of weight by weight.
 2. “<” denotes less than
 3. “≥” denotes not less than
 4. “≤” denotes not more than
 5. The specification was quoted from French Arrêté du 13 Janvier 1976.

3.18 Sensory test

- With reference to ISO 13302 Scoring Test and ISO 4120

Testing parameter	Grading result			Recommended level
	018	019	020	
Transfer of smell	1.0	0.5	0.5	< 2.5
Transfer of taste	0.5	0.5	0.5	< 2.5

Testing parameter	Grading result			Recommended level
	021	022	023	
Transfer of smell	1.0	0.5	1.0	< 2.5
Transfer of taste	0.5	0.5	0.5	< 2.5

Testing parameter	Grading result		Recommended level
	024	025	
Transfer of smell	1.0	0.5	< 2.5
Transfer of taste	0.5	0.5	< 2.5

- Note:
- Available grading are listed as follow:
 - Grading 0: No perceptible taste/smell deviation
 - 1: Just perceptible taste/smell deviation
 - 2: Weak taste/smell deviation
 - 3: Clear taste/smell deviation
 - 4: Strong taste/smell deviation
 - "<" means "less than"



4. Remark

- 4.1 The sample was identified by client.
- 4.2 The test is based upon the client's requirement.
- 4.3 The photo and test data of samples 001 were quoted from that of sample 001 in technical report No.: 64.165.13.03684.01H Rev.00 issued on 2013-12-19.
- 4.4 The photo and test data of samples 002 were quoted from that of sample 001 in technical report No.: 64.165.13.03969.01D Rev.00 issued on 2014-01-08.
- 4.5 The photo and test data of samples 007 were quoted from that of sample 003 in technical report No.: 64.165.13.02160.01E Rev.01 issued on 2013-10-14.
- 4.6 The photo and test data of samples 011 were quoted from that of sample 009 in technical report No.: 64.165.13.01912.01B Rev.01 issued on 2014-07-18.

5. Documentation

Annex 01: Model list provided by client



TÜV SÜD Certification and Testing (China) Co., Ltd. Guangzhou Branch
TÜV SÜD Group



Engineer:

Arnold Huang
Arnold Huang

Technical Report checked:

Kevin Zhang
Kevin Zhang

Annex 01: Model list provided by client

HM-918, HM-918x, HM-928, HM-928x, HM-930, HM-930x, HM-931, HM-931x, HM-932, HM-932x, HM-933, HM-933x, HM-938, HM-938x, HM-939, HM-939x, HM-936, HM-936x, HM-950, HM-950x, HM-960, HM-960x, HM-932S, HM-932Sx, HM-932M, HM-932Mx, HM-968, HM-968x, HM-969, HM-969x, HM-932N, HM-932Nx (x=A, B, C, D, E), HM-961, HM-961A, HM-961N, HM-961NA, HM-938M, SM-80, HM-962, HM-962A, HM-962B, HM-962C, HM-962D, HM-962E

S-890, S-892, S-892S, S-893, S-895, AS 2958, AS 432 CB, OMS101-W
8871, 8872, 8873, 8873A, 8873B, 8876-1, 8876-2, 8877-1, 8877-2, 8878-1, 8878-2, 8878A-1, 8878A-2, 8879-1, 8879-2, 8880

HM-608, HM-618, HM-608A, HM-618A, HM-628B-x, HM-628B-xyy, HM-628B-xWRB, HM-707C-x, HM-707C-xyy, HM-707C-x, WRB, HM-713-xWRB (X=1, 2, 3; YY=WH, WB), HM-628, HM-628-2, HM-628WB, HM-628WRB, HM-628WH, HM-638A, HM-638AWH, HM-638AWB, HM-638AWRB, HM-668-x, HM-668WH-x, HM-668WB-x, HM-668A-x, HM-668AWH-x, HM-668AWB-x (x=1, 2, 3), HM-638, HM-638WB, HM-638WH, HM-638WRB, HM-678-x, HM-678-xWH, HM-678-xWB, HM-688-x, HM-688-xWH, HM-688-xWB, HM-688-xWRB, M-290-xWH, M-600-xWRB, HM-678A-y, HM-678A-yWB (x=1, 2, 3; y=1, 2), HM-628BWRBS2+BLENDER, HM-628A-4, HM-729-x, HM-729WB-x, HM-682C-x, HM-707D-x (x=1, 2, 3), HM-730-X, HM-730-XWB, HM-730-XWRB, HM-730-XWRBS2, HM-730-XWRBS2+BLENDER, HM-730D-X, HM-730D-XWB, HM-723M-X, HM-723M-XWB, HM-723M-XWRB, HM-723M-XWRBS2, HM-723M-XWRBS2+BLENDER, HM-723M-XWB+BLENDER, HM-723M-XWRB+BLENDER (X=1, 2, 3), HM-731, HM-731WB, HM-731WRB, HM-732-X, HM-732-XWB, HM-732-XWRB, HM-732-XWRBS2, HM-732-XWRBS2+BLENDER, HM-732-X+BLENDER, HM-732-XWRB+BLENDER, HM-732-XWB+BLENDER (X=1, 2, 3), HM-718, HM-721-x, HM-721-xWB, HM-723-x, HM-723-xWRB, HM-723-xWRBS1, HM-723-xWRBS2 (x=1, 2, 3), HM-709-x, HM-711-x, HM-712-x, HM-713-x, HM-716-x, HM-720-x, HM-709-xWB, HM-711-xWB, HM-712-xWB, HM-712-xWRB, HM-713-xWB, HM-716-xWB, HM-716-xWRB, HM-720-xWB, HM-711B-x, HM-712A-x, HM-712A-xWB, HM-712A-xWRB, HM-712-x+WRBS1 (x=1, 2, 3, 4; x=4 is only for HM-712-x, HM-711B-x, HM-712-xWB, HM-712-xWRB), HM-628A-x, HM-628A-xWH, HM-628A-xWB, HM-628A-xWRB (x=1, 2, 3), HM-683, HM-683A, HM-683WB, HM-683WH, HM-683AWB, HM-683AWH, HM-687, HM-687A, HM-687WB, HM-687WH, HM-687AWB, HM-687AWH, HM-687WRB, HM-687AWRB, HM-683-3, HM-683-3WB, HM-683-3WH, HM-687-3, HM-687-3WB, HM-687-3WH, HM-687-3WRB, HM-689-x, HM-689-xWB, HM-689-xWH (x=1, 2, 3), HM-703-x, HM-703-xWH, HM-703-xWB (x=1, 2), HM-706-x, HM-706-xWH, HM-706-xWB (x=1, 2), HM-707-x, HM-707-xWH, HM-707-xWB, HM-707-xWRB (x=1, 2, 3), HM-711-A, HM-711WB-A, HM-638+CHOPPER, HM-703-x+Chopper, HM-706-x+Chopper, HM-707C-x+Chopper, HM-712-x+Chopper, HM-713-x+Chopper, HM-720-x+Chopper, HM-721-x+Chopper, HM-723-x+Chopper (x=1, 2, 3), HM-682, HM-682WB, HM-682WH, HM-682A, HM-682AWB, HM-682AWH, HM-686, HM-686WH, HM-701, HM-702-x, HM-702WB-x, HM-702B-x, HM-702BWB-x (X=1:150W, X=2:180W), HM-682A-1, HM-682AWB-1, HM-682D, HM-682D-1, HM-733,



HM-733WB, HM-733WRB, HM-735, HM-735WB, HM-735WRB, HM-736-x, HM-736-xWB, HM-736-xWRB (x=1,2,3), HM-737, HM-737WB, HM-737WRB, HM-739, HM-739WB, HM-739WRB, HM2500, HMBS2500, HMS 3320, HMS 2739, HM 3316, CB 336, CB 334, HM 359 CB, BV 4625,

BV 4630, MS4200, BA4200

CH-1101, CH-1101A, CH-1101B, CH-1101S, CH-1101N, CH-1101M, CH-1102, CH-1102A, CH-1102B, CH-1102BG, CH-1102N, CH-1102BN, CH-1102SG, CH-1103, CH-1106, CH-1107, CH-1108, CH-1109, CH-1109B, CH-1109N, CH-1109BN, CH-1102G, CH-1106G, CH-1109G, CH-1102S, CH-1108G, JM-1022, JM-1020, JM-1021, UM-1028, UM-1030, UM-1031, UM-1028S, UM-1028L, UM-1029, UM-1038, UM-1018, UM-1033 MC3000, CH-2232

FP-882, FP-883, FP-885

EK-120, EK-120S

