



Test Report

No. :150205040GZU-001

Date : Mar 16, 2015

Applicant: SHUNDE KILON ELECTRICAL CO., LTD
XIQING INDUSTRIAL AREA, LONGJIANG TOWN,
SHUNDE, FOSHAN, GUANGDONG, P.R.CHINA

Sample Description:

The following submitted sample said to be

Item Name : **Blender**
Model No. : KL-217G
Reference No. : See the Appendix
Date of Sample Received : Feb 06, 2015
Testing Period : Feb 06, 2015 to Feb 16, 2015

Tests conducted:

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

Conclusion:

According to the test results of below test parameters, the submitted sample **complied with** the food contacting requirements for §30 and §31 LFGB and Regulation (EC) 1935/2004.

To Be Continued

Authorized by:
For Intertek Testing Services Shenzhen Ltd.
Guangzhou Branch



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Annie Liang
Project Engineer



Test Report

No. :150205040GZU-001

Date : Mar 16, 2015

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

<u>Tested parameters</u>	<u>Result</u>
1) Sensory test	Pass
2) Global migration on plastic	Pass
3) Specific migration of heavy metal on plastic	Pass
4) PAH content	Pass
5) Specific migration of PAH	Pass
6) Total Lead and Cadmium	Pass
7) Volatile organic matter	Pass
8) Peroxides residues	Pass
9) Determination of heavy metal release on metal	Pass
10) Specific migration of butadiene	Pass
11) Specific migration of acrylonitrile	Pass
12) Leachable Lead, Cadmium and Cobalt content	Pass
13) Extractable substances of silicone rubber	Pass

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Test Report

No. :150205040GZU-001

Date : Mar 16, 2015

Tests Conducted

Tested components:

- (1) White plastic (cup cover, PP)
- (2) Black plastic (cup cover, PP)
- (3) Red plastic (cup cover, PP)
- (4) Green plastic (cup cover, PP)
- (5) Transparent plastic (cup, TRITAN)
- (6) White plastic (cup, ABS)
- (7) Transparent plastic (cup, PS)
- (8) Semi-transparent silicone rubber (seal ring)
- (9) Silver color metal (knife asm, stainless steel)
- (10) Transparent glass (cup)

1 Migration Test For Plastic Food Contacting Materials/Articles

As per §64 LFGB B80.30-1, B80.30-2 and B80.30-3.

I. Test condition:

Temperature : 70°C

Time : 2 hours

II. Test result :

<u>Food Simulant</u>	<u>Result (mg/dm²)</u>		<u>Limit (mg/dm²)</u>
	<u>(1)</u>	<u>(2)</u>	
3% (w/v) acetic acid	4	<1	10

<u>Food Simulant</u>	<u>Result (mg/dm²)</u>		<u>Limit (mg/dm²)</u>
	<u>(3)</u>	<u>(4)</u>	
3% (w/v) acetic acid	7	6	10

<u>Food Simulant</u>	<u>Result (mg/dm²)</u>		<u>Limit (mg/dm²)</u>
	<u>(5)</u>	<u>(6)</u>	
3% (w/v) acetic acid	<1	<1	10

<u>Food Simulant</u>	<u>Result (mg/dm²)</u>	<u>Limit (mg/dm²)</u>
	<u>(7)</u>	
3% (w/v) acetic acid	<1	10

Test Report

No. :150205040GZU-001

Date : Mar 16, 2015

2 Specific Migration of Heavy Metal for Plastic Food Contacting Materials/Articles

As per Commission Regulation (EU) No. 10/2011 and its amendments.

I. Test condition:

Temperature : 40°C

Time : 30 minutes

II. Test result :

<u>Food Simulant</u>	<u>Element</u>	<u>Result (mg/kg)</u> <u>(1)</u>	<u>Limit (mg/kg)</u>
3% (w/v) Acetic acid in aqueous solution	Barium	<0.1	1 (max.)
	Cobalt	<0.03	0.05 (max.)
	Copper	<1	5 (max.)
	Iron	<5	48 (max.)
	Lithium	<0.1	0.6 (max.)
	Manganese	<0.1	0.6 (max.)
	Zinc	<5	25 (max.)

<u>Food Simulant</u>	<u>Element</u>	<u>Result (mg/kg)</u> <u>(2)</u>	<u>Limit (mg/kg)</u>
3% (w/v) Acetic acid in aqueous solution	Barium	0.3	1 (max.)
	Cobalt	<0.03	0.05 (max.)
	Copper	<1	5 (max.)
	Iron	<5	48 (max.)
	Lithium	<0.1	0.6 (max.)
	Manganese	<0.1	0.6 (max.)
	Zinc	<5	25 (max.)

<u>Food Simulant</u>	<u>Element</u>	<u>Result (mg/kg)</u> <u>(3)-(7)</u>	<u>Limit (mg/kg)</u>
3% (w/v) Acetic acid in aqueous solution	Barium	<0.1	1 (max.)
	Cobalt	<0.03	0.05 (max.)
	Copper	<1	5 (max.)
	Iron	<5	48 (max.)
	Lithium	<0.1	0.6 (max.)
	Manganese	<0.1	0.6 (max.)
	Zinc	<5	25 (max.)

3. Polycyclic Aromatic Hydrocarbons (PAHs) Content

By solvent extraction and determined by Gas Chromatographic - Mass Spectrometric Detector (GC-MSD).

Test Results:

<u>Compound</u>	<u>Result (ppm)</u>			
	(1)	(2)	(3)	(4)
Naphthalene	<0.2	<0.2	<0.2	<0.2
Acenaphthylene	<0.2	<0.2	<0.2	<0.2
Acenaphthene	<0.2	<0.2	<0.2	<0.2
Fluorene	<0.2	<0.2	<0.2	<0.2
Phenanthrene	<0.2	<0.2	<0.2	<0.2
Anthracene	<0.2	<0.2	<0.2	<0.2
Fluoranthene	<0.2	<0.2	<0.2	<0.2
Pyrene	<0.2	0.6	0.2	0.3
Chrysene	<0.2	<0.2	<0.2	<0.2
Benzo[a]anthracene	<0.2	<0.2	<0.2	<0.2
Benzo[b]fluoranthene	<0.2	<0.2	<0.2	<0.2
Benzo[j]fluoranthene	<0.2	<0.2	<0.2	<0.2
Benzo[k]fluoranthene	<0.2	<0.2	<0.2	<0.2
Benzo[a]pyrene	<0.2	<0.2	<0.2	<0.2
Benzo[e]pyrene	<0.2	<0.2	<0.2	<0.2
Dibenzo[a,h]anthracene	<0.2	<0.2	<0.2	<0.2
Indeno[1,2,3-c,d]pyrene	<0.2	<0.2	<0.2	<0.2
Benzo[g,h,i]perylene	<0.2	<0.2	<0.2	<0.2
Sum of PAHs	<0.2	0.6	0.2	0.3

**Test Report**

No. :150205040GZU-001

Date : Mar 16, 2015

<u>Compound</u>	<u>Result (ppm)</u>			
	(5)	(6)	(7)	(8)
Naphthalene	<0.2	<0.2	<0.2	<0.2
Acenaphthylene	<0.2	<0.2	<0.2	<0.2
Acenaphthene	<0.2	<0.2	<0.2	<0.2
Fluorene	<0.2	<0.2	<0.2	<0.2
Phenanthrene	<0.2	<0.2	<0.2	<0.2
Anthracene	<0.2	<0.2	<0.2	<0.2
Fluoranthene	<0.2	<0.2	<0.2	<0.2
Pyrene	<0.2	<0.2	<0.2	<0.2
Chrysene	<0.2	<0.2	<0.2	<0.2
Benzo[a]anthracene	<0.2	<0.2	<0.2	<0.2
Benzo[b]fluoranthene	<0.2	<0.2	<0.2	<0.2
Benzo[j]fluoranthene	<0.2	<0.2	<0.2	<0.2
Benzo[k]fluoranthene	<0.2	<0.2	<0.2	<0.2
Benzo[a]pyrene	<0.2	<0.2	<0.2	<0.2
Benzo[e]pyrene	<0.2	<0.2	<0.2	<0.2
Dibenzo[a,h]anthracene	<0.2	<0.2	<0.2	<0.2
Indeno[1,2,3-c,d]pyrene	<0.2	<0.2	<0.2	<0.2
Benzo[g,h,i]perylene	<0.2	<0.2	<0.2	<0.2
Sum of PAHs	<0.2	<0.2	<0.2	<0.2

Remark : ppm = parts per million = mg/kg

Test Report

No. :150205040GZU-001

Date : Mar 16, 2015

4 Migration of Polycyclic Aromatic Hydrocarbons (PAHs)

As per Commission Regulation (EU) No. 10/2011 and its amendments.

Test Results:

Compound	Result (µg/l)			Requirement
	(2)	(3)	(4)	
Naphthalene	ND	ND	ND	---
Acenaphthylene	ND	ND	ND	---
Acenaphthene	ND	ND	ND	---
Fluorene	ND	ND	ND	---
Phenanthrene	ND	ND	ND	---
Anthracene	ND	ND	ND	---
Fluoranthene	ND	ND	ND	---
Pyrene	ND	ND	ND	---
Chrysene	ND	ND	ND	---
Benzo[a]anthracene	ND	ND	ND	---
Benzo[b]fluoranthene	ND	ND	ND	---
Benzo[j]fluoranthene	ND	ND	ND	---
Benzo[k]fluoranthene	ND	ND	ND	---
Benzo[a]pyrene	ND	ND	ND	ND
Benzo[e]pyrene	ND	ND	ND	---
Dibenzo[a,h]anthracene	ND	ND	ND	---
Indeno[1,2,3-c,d]pyrene	ND	ND	ND	---
Benzo[g,h,i]perylene	ND	ND	ND	---
Sum of PAHs	ND	ND	ND	ND

ND = Not detected

Detection limit = 10 µg/l

µg/l = microgram per litre

5. Total Lead and Cadmium Content

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

Element	Result (ppm) (1)-(8)	Requirement (ppm)
Lead (Pb)	<10	100
Cadmium (Cd)	<10	100

ppm = parts per million = mg/kg



Test Report

No. :150205040GZU-001

Date : Mar 16, 2015

6. Volatile Organic Matter of Polystyrene / Styrene Copolymers

As per LFGB Recommendation V/VI.

<u>Tested Component</u>	<u>Result (mg/dm³)</u>
(6)	13
(7)	<5

Limit : 15mg/dm³ (Max.)

7. Specific Migration of Acrylonitrile Test for Plastic Food Contacting Materials/Articles

As per Commission Regulation (EU) No. 10/2011 and its amendments.

I. Test condition:

Temperature : 40°C

Time : 30 minutes

II. Test condition:

<u>Food simulant</u>	<u>Temperature(°C)</u>	<u>Time (minutes)</u>
3% (w/v) acetic acid	40	30

III. Test result

<u>Food Simulant</u>	<u>Result (mg/kg)</u> <u>(6)</u>	<u>Limit</u>
3% (w/v) Acetic acid	ND	ND

ND = Not detected

Detection Limit = 0.01 mg/kg

Test Report

No. :150205040GZU-001

Date : Mar 16, 2015

8 Specific Migration of Butadiene Test for Plastic Food Contacting Materials/Articles

As per Commission Regulation (EU) No. 10/2011 and its amendments.

I. Test condition:

Temperature : 40°C

Time : 30 minutes

II. Test condition:

Food simulant

Temperature(°C)

Time (minutes)

3% (w/v) acetic acid

40

30

III. Test result

Food Simulant

Result (mg/kg)
(6)

Limit

3% (w/v) Acetic acid

ND

ND

ND = Not detected

Detection Limit = 0.01 mg/kg

9. Peroxide Residues of Polystyrene / Styrene Copolymers

As per LFGB Recommendation V/VI.

Tested Component
(6)

Result
No positive reaction

(7)

No positive reaction

Limit : no positive reaction to peroxides



Test Report

No. :150205040GZU-001

Date : Mar 16, 2015

10 Volatile Organic Matter of Silicone Rubber

As per BfR recommendations on food contact materials (formerly "Plastics Recommendations") part BII XV.

I. Test condition:

Temperature: 40°C

Time : 30 minutes

II. Result :

<u>Tested component of submitted sample</u>	<u>Result (%) (8)</u>	<u>Limit (%)</u>
(8)	<0.10	0.5

11 Extractable substances of silicone rubber

As per LFGB plastic recommendation XV.

<u>Food simulant</u>	<u>Result (%) (8)</u>	<u>Limit (%)</u>
Distilled water	<0.10	0.5
3% (w/v) acetic acid	<0.10	0.5
10% (v/v) ethanol	<0.10	0.5

12 Peroxide Residues of Silicone Rubber

As per LFGB Plastic Recommendation BII XV.

<u>Tested Component</u>	<u>Result</u>
(8)	No positive reaction

Limit : No positive reaction to peroxides

13. 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:

Temperature: 40 °C

Time: 30 minutes

II . Test Result:

Food Simulant : Citric acid (5 g/L)

Tested component (9) :

Elements	Result 1 st test (mg/kg)	Result 2 nd test (mg/kg)	Result 1 st test +Result 2 nd test (mg/kg)	7*Limit (mg/kg)	Result 3 rd test (mg/kg)	Limit (mg/kg)
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)	<1	<1	<1	-	<1	-
Titanium (Ti)	<1	<1	<1	-	<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.

Test Report

No. :150205040GZU-001

Date : Mar 16, 2015

14. Leachable lead and cadmium and cobalt content

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

<u>Tested</u>		<u>Result</u>		
<u>Sample/</u> <u>Specimen</u>	<u>Volume of leaching</u> <u>Solution</u> <u>(ml)</u>	<u>Lead</u> <u>(ppm)</u>	<u>Cadmium</u> <u>(ppm)</u>	<u>Cobalt</u> <u>(ppm)</u>
(1)	670	<0.05	<0.03	<0.03
(2)	670	<0.05	<0.03	<0.03
(3)	670	<0.05	<0.03	<0.03
(4)	670	<0.05	<0.03	<0.03
Limit (Hollowware) :		4.0	0.3	0.05

Remark : ppm = parts per million = mg/l

15. Sensory Evaluation

With reference to §64 LFGB L00.90-6.

Test Procedure:

Sample was thoroughly rinsed with distilled water and then filled with distilled water to capacity. Filled sample was kept at ambient temperature (20-28°C) and relative humidity (40-80%) for 20 hours. Off-odour and off-taste was evaluated with 5 panelists using control sample of distilled water.

Result:

Tested sample: Red style

Appearance : Clear, Colourless
Odour : No perceptible odour
Taste : No perceptible off-taste

Tested sample: Green style

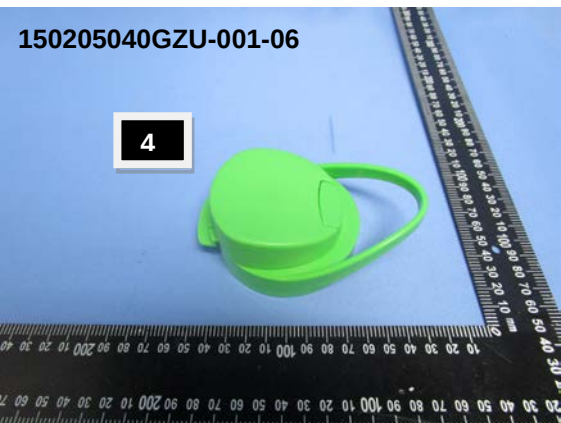
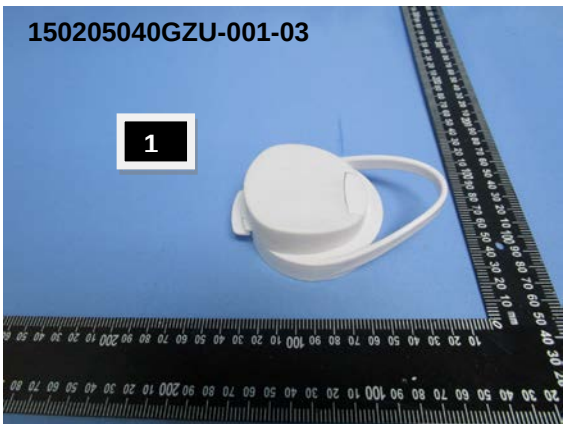
Appearance : Clear, Colourless
Odour : No perceptible odour
Taste : No perceptible off-taste

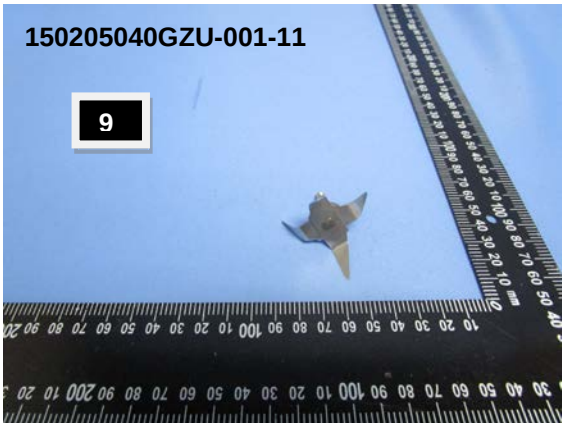
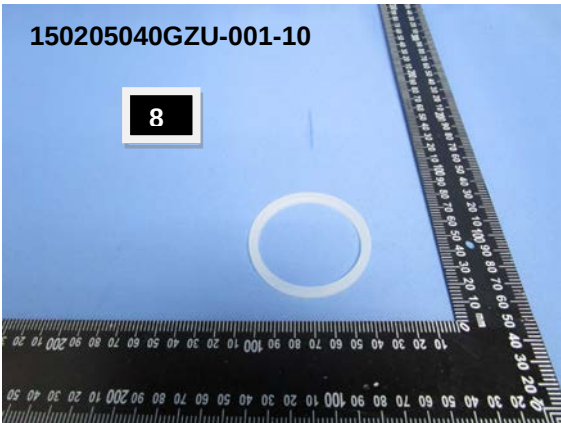
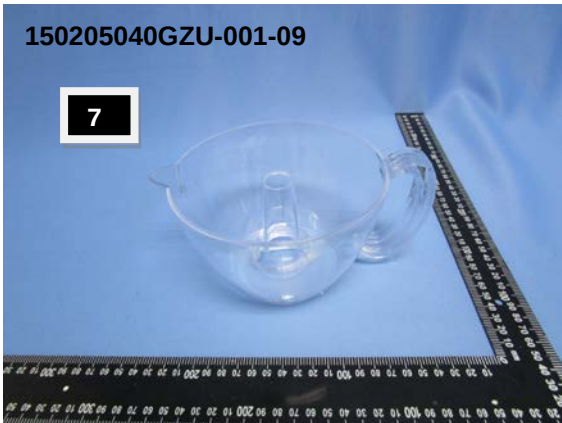
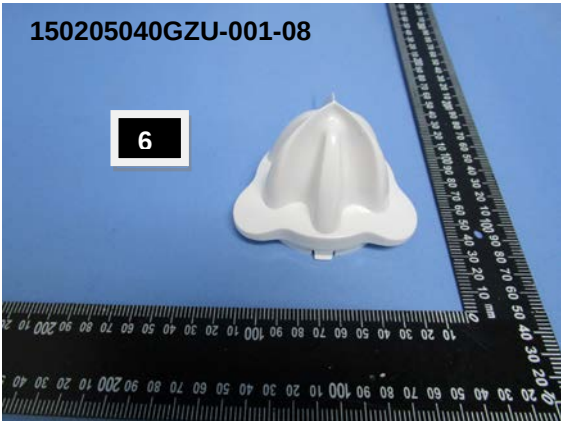
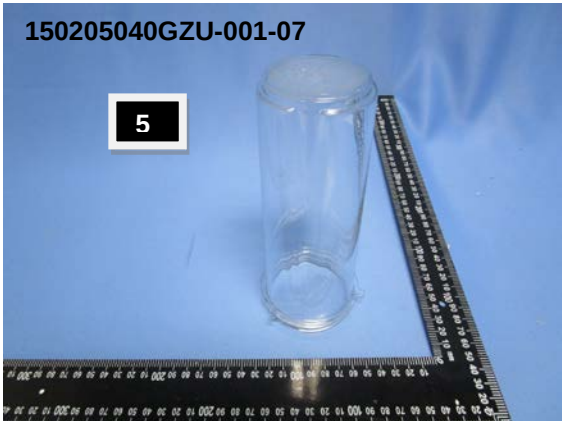


Appendix

KL-217, KL-217B, KL-217C, KL-217F, KL-217S, KL-210, KL-210B, KL-210C,
KL-210E, KL-212, KL-218, KL-219, KL-213; KL-213E, KL-215, KL-215B, KL-216,
KL-216B, KL-211, KL-211B, KL-222, KL-223, KL-226, KL-226B, KL-227, KL-228,
KL-229, KL-322, KL-322B, KL-323A, KL-323B, KL-323C, KL-326, KL-326B, KL-328,
KL-329, KL-329B, KL-818, KL-818A2, KL-818A3, KL-818B, KL-818B2, KL-818B3,
KL-818C, KL-818C2, KL-818C3, KL-601, KL-602, KL-603S, KL-603L, KL-606,
KL-608, KL-611, KL-611B, KL-613, KL-618, KL-616, KL-616B, KL-703, KL-703B,
KL-801, KL-802, KL-802B, KL-803, KL-803B, KL-803C, KL-803D, KL-806, KL-806B,
KL-RD516, KL-RD516B, KL-809, KL-808A, KL-808B, KL-808C, KL-808D, KL-RD216,
KL-RD216B, KL-RD316, KL-RD316B, KL-813, KL-821, KL-915, KL-916, KL-916B,
KL-916C, KL-916D, KL-912, KL-912B, KL-917, KL-919, KL-918, KL-913, KL-913B,
KL-TS188G, KL-TS189G, KL-TS166GA, KL-TS166GC, KL-TS166GB, KL-TS166GD,
KL-TS167G, KL-TS169G, KL-TS165G, KL-TS167GS, KL-TS165, KL-TS167,
KL-TS166A, KL-TS166D, KL-TS169, KL-TS186, KL-TS187, KL-TS136G, KL-TS137G,
KL-TS138G, KL-TS136, KL-TS137, KL-TS138, KL-TS128, KL-TS128B, KL-TS228,
KL-TS326, KL-TS327A, KL-TS328, KL-TS337G, KL-TS328G, KL-TS339G, KL-TS337,
KL-TS338, KL-TS339, KL-TS336, KL-TS336A, KL-TS329S, KL-TS327S, KL-TS329,
KL-TS327, KL-TS160, KL-TS161, KL-TS162, KL-TS168, KL-TS102, KL-TS103S,
KL-TS103, KL-TS116, KL-TS106S, KL-TS106, KL-TS106AS, KL-TS106A, KL-TS107,
KL-TS117, KL-TS127, KL-IS600, KL-IS600B, KL-IS700, KL-IS700B

Sample photo





End of report



Test Report

No. :150205040GZU-001

Date : Mar 16, 2015

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