

Test Report

Report No.: 190401151GZU-004

Date: Apr 18, 2019

Zhongshan Gentech Electric Appliance Co., Ltd

Applicant: (Floor 2-1, Lianping Plant) Donghe Road, Xiaoli Community,
Donfeng Town, Zhongshan

Sample Description:

The following submitted sample(s) said to be:

Item Name : **OVEN (Pure aluminum plate baking tray, Iron chrome grilled net, SUS304 stainless steel grill)**
Reference No. : See appendix
Date of Sample Received : Apr 03, 2019
Testing Period : Apr 03, 2019 to Apr 18, 2019

Tests conducted:

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

Conclusion:

Tested Sample	Standard	Result
(3)	French DGCCRF Document related to metals and alloys And French arrête of January 13, 1976 for total heavy metals content in stainless steel	Pass
(1b), (2b)	French DGCCRF Document related to metals and alloys on metal composition	Pass
(1a), (2a)	French DGCCRF Document related to metals and alloys on heavy metal content of metal coating	Pass
(1), (2), (3)	French DGCCRF document related to metals and alloys Used in Food Contact Materials and Articles on specific migration of heavy metal	Pass

Authorized by:

For Intertek Testing Services Shenzhen Ltd. Guangzhou Branch:



Michael Pang
Assistant Technical Supervisor



1 Total Heavy Metals Analysis

As per French Arrête of January 13, 1976 relating to materials and objects made out of stainless steel in contact with the food products, acid digestion method was used and total heavy metals content were determined by Inductively Coupled Argon Plasma Spectrometry.

Element	Result (%)	Detection Limit (%)	Limit (%)
	(3)		
Tot. Molybdenum (Mo)	0.03	0.01	Max 4.00
Tot. Tantalum (Ta)	0.07	0.01	Max 1.00
Tot. Chromium (Cr)	18.35	0.01	Min 13.00
Tot. Niobium (Nb)	ND	0.01	Max 1.00
Tot. Copper (Cu)	0.08	0.01	Max 4.00
Tot. Titanium (Ti)	ND	0.01	Max 4.00
Tot. Zirconium (Zr)	ND	0.01	Max 1.00
Tot. Aluminum (Al)	ND	0.01	Max 4.00

ND = No detected

Max. = Maximum

Min. = Minimum

2 Metal Composition

Acid digestion method was used and heavy metal content was determined by Inductively Coupled Argon Plasma Spectrometry.

Element	Result (%)		Detection Limit (%)	Limit (%)
	(1b)	(2b)		
Lead (Pb)	ND	ND	0.001	0.01
Cadmium (Cd)	ND	ND	0.001	0.01
Arsenic (As)	ND	ND	0.001	0.03
Cobalt (Co)	ND	ND	0.001	0.05

ND = Not detected

3 Heavy Metal Content of Metal Coating

Acid digestion method was used and heavy metal content was determined by Inductively Coupled Argon Plasma Spectrometry.

Element	Result (%)		Detection Limit (%)	Limit (%)
	(1a)	(2a)		
Total Lead (Pb)	ND	ND	0.001	0.05
Total Cadmium (Cd)	ND	ND	0.001	0.01
Total Arsenic (As)	ND	ND	0.001	0.03

ND = Not detected



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4 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: 100 °C Time: 4 hours

II. Test Result:

Food simulant: Artificial tap water (prepare according DIN 10531 Clause 4.2.2.2)

Tested component (2):							
Element	Result 1 st test (mg/kg)	Result 2 nd test (mg/kg)	Result 1 st test+Result 2 nd test (mg/kg)	Result 3 rd test (mg/kg)	Detection Limit (mg/kg)	7*Limit (mg/kg)	Limit (mg/kg)
Silver (Ag)	ND	ND	ND	ND	0.05	0.56	0.08
Aluminium (Al)	ND	ND	ND	ND	1	35	5
Chromium (Cr)	ND	ND	ND	ND	0.02	1.75	0.250
Cobalt (Co)	ND	ND	ND	ND	0.01	0.14	0.02
Copper (Cu)	ND	ND	ND	ND	0.5	28	4
Iron (Fe)	ND	ND	ND	ND	1	280	40
Manganese (Mn)	ND	ND	ND	ND	0.1	12.6	1.8
Molybdenum (Mo)	ND	ND	ND	ND	0.02	0.84	0.12
Nickel (Ni)	ND	ND	ND	ND	0.1	0.91	0.14
Tin (Sn)	ND	ND	ND	ND	10	700	100
Vanadium (V)	ND	ND	ND	ND	0.005	0.07	0.01
Zinc (Zn)	ND	ND	ND	ND	1	35	5
Antimony (Sb)	ND	ND	ND	ND	0.01	0.28	0.04
Arsenic (As)	ND	ND	ND	ND	0.001	0.014	0.002
Barium (Ba)	ND	ND	ND	ND	0.1	8.4	1.2
Beryllium (Be)	ND	ND	ND	ND	0.01	0.07	0.01
Cadmium (Cd)	ND	ND	ND	ND	0.001	0.035	0.005
Lead (Pb)	ND	ND	ND	ND	0.005	0.070	0.010
Lithium (Li)	ND	ND	ND	ND	0.010	0.336	0.048
Mercury (Hg)	ND	ND	ND	ND	0.003	0.021	0.003
Thallium (Tl)	ND	ND	ND	ND	0.0001	0.0007	0.0001
Magnesium (Mg)	ND	ND	ND	ND	1	-	-
Titanium (Ti)	ND	ND	ND	ND	1	-	-



Test Report

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I. Test Condition:

Temperature: 100 °C

Time: 4 hours

II. Test Result:

Food simulant: Citric acid (5 g/L)

Tested component (1):							
Element	Result 1 st test (mg/kg)	Result 2 nd test (mg/kg)	Result 1 st test+Result 2 nd test (mg/kg)	Result 3 rd test (mg/kg)	Detection Limit (mg/kg)	7*Limit (mg/kg)	Limit (mg/kg)
Silver (Ag)	ND	ND	ND	ND	0.05	0.56	0.08
Aluminium (Al)	ND	ND	ND	ND	1	35	5
Chromium (Cr)	0.6	0.8	1.4	0.03	0.02	1.75	0.250
Cobalt (Co)	ND	ND	ND	ND	0.01	0.14	0.02
Copper (Cu)	ND	ND	ND	ND	0.5	28	4
Iron (Fe)	2.2	5.3	7.5	12.2	1	280	40
Manganese (Mn)	ND	ND	ND	ND	0.1	12.6	1.8
Molybdenum (Mo)	ND	ND	ND	ND	0.02	0.84	0.12
Nickel (Ni)	ND	ND	ND	ND	0.1	0.91	0.14
Tin (Sn)	ND	ND	ND	ND	10	700	100
Vanadium (V)	ND	ND	ND	ND	0.005	0.07	0.01
Zinc (Zn)	ND	ND	ND	ND	1	35	5
Antimony (Sb)	ND	ND	ND	ND	0.01	0.28	0.04
Arsenic (As)	ND	ND	ND	ND	0.001	0.014	0.002
Barium (Ba)	ND	ND	ND	ND	0.1	8.4	1.2
Beryllium (Be)	ND	ND	ND	ND	0.01	0.07	0.01
Cadmium (Cd)	ND	ND	ND	ND	0.001	0.035	0.005
Lead (Pb)	ND	ND	ND	ND	0.005	0.070	0.010
Lithium (Li)	ND	ND	ND	ND	0.010	0.336	0.048
Mercury (Hg)	ND	ND	ND	ND	0.003	0.021	0.003
Thallium (Tl)	ND	ND	ND	ND	0.0001	0.0007	0.0001
Magnesium (Mg)	ND	ND	ND	ND	1	-	-
Titanium (Ti)	ND	ND	ND	ND	1	-	-



Tested component (3):							
Element	Result 1 st test (mg/kg)	Result 2 nd test (mg/kg)	Result 1 st test+Result 2 nd test (mg/kg)	Result 3 rd test (mg/kg)	Detection Limit (mg/kg)	7*Limit (mg/kg)	Limit (mg/kg)
Silver (Ag)	ND	ND	ND	ND	0.05	0.56	0.08
Aluminium (Al)	ND	ND	ND	ND	1	35	5
Chromium (Cr)	0.07	ND	0.07	ND	0.02	1.75	0.250
Cobalt (Co)	ND	ND	ND	ND	0.01	0.14	0.02
Copper (Cu)	ND	ND	ND	ND	0.5	28	4
Iron (Fe)	ND	ND	ND	ND	1	280	40
Manganese (Mn)	ND	ND	ND	ND	0.1	12.6	1.8
Molybdenum (Mo)	ND	ND	ND	ND	0.02	0.84	0.12
Nickel (Ni)	ND	ND	ND	ND	0.1	0.91	0.14
Tin (Sn)	ND	ND	ND	ND	10	700	100
Vanadium (V)	ND	ND	ND	ND	0.005	0.07	0.01
Zinc (Zn)	ND	ND	ND	ND	1	35	5
Antimony (Sb)	ND	ND	ND	ND	0.01	0.28	0.04
Arsenic (As)	ND	ND	ND	ND	0.001	0.014	0.002
Barium (Ba)	ND	ND	ND	ND	0.1	8.4	1.2
Beryllium (Be)	ND	ND	ND	ND	0.01	0.07	0.01
Cadmium (Cd)	ND	ND	ND	ND	0.001	0.035	0.005
Lead (Pb)	ND	ND	ND	ND	0.005	0.070	0.010
Lithium (Li)	ND	ND	ND	ND	0.010	0.336	0.048
Mercury (Hg)	ND	ND	ND	ND	0.003	0.021	0.003
Thallium (Tl)	ND	ND	ND	ND	0.0001	0.0007	0.0001
Magnesium (Mg)	ND	ND	ND	ND	1	-	-
Titanium (Ti)	ND	ND	ND	ND	1	-	-

ND = Not detected

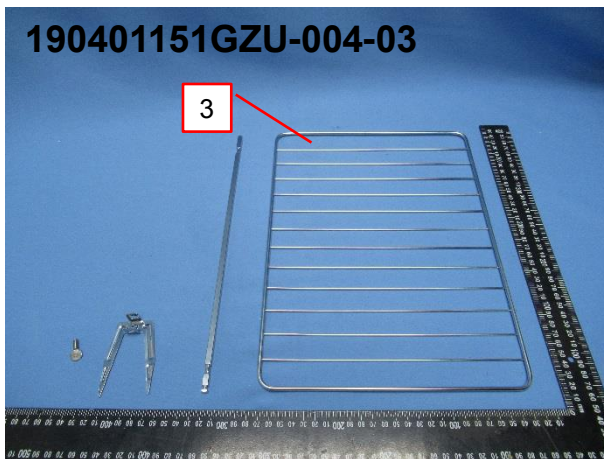
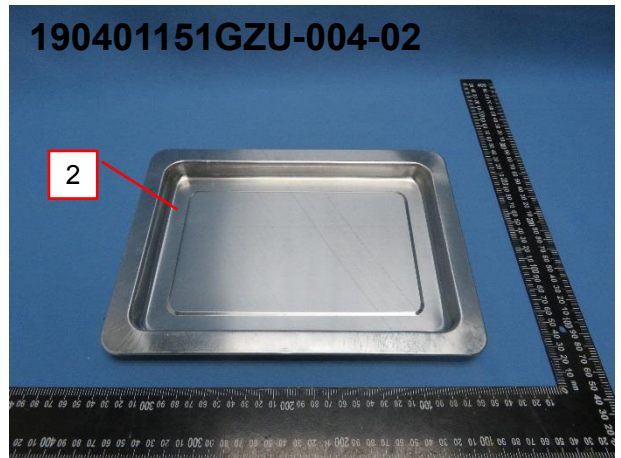
mg/kg = milligram per kilogram

Tested components:

- (1) Silver color metal (Cr plated)
 - (1a) Silver color coating on metal
 - (1b) Metal excluding coating
- (2) Silver color metal (Al plate pan)
 - (2a) Silver color coating on metal
 - (2b) Metal excluding coating
- (3) Silver color metal (SUS304)



Sample photo



Appendix

JK09B-01	JK09B-02	JK09D-01	JK09D-02	JK16B01	JK16B01-R	JK16B01-M	
JK16B01-R M	JK16B01-L	JK16B01-R L	JK16B01- ML	JK16B01-R ML	JK19B01	JK19B01- R	JK19B01- M
JK19B01-R M	JK19B01-L	JK19B01-R L	JK19B01- ML	JK19B01-R ML	JK25B01	JK25B01- R	JK25B01- M
JK25B01-R M	JK25B01-L	JK25B01-R L	JK25B01- ML	JK25B01-R ML	JK25B02-R	JK25B02- M	
JK25B02-R M	JK25B02-L	JK25B02-R L	JK25B02- ML	JK25B02-R ML	JK30B01	JK30B01- R	JK30B01- M
JK30B01-R M	JK30B01-L	JK30B01-R L	JK30B01- ML	JK30B01-R ML	JK30B02-R	JK30B02- M	
JK30B02-R M	JK30B02-L	JK30B02-R L	JK30B02- ML	JK30B02-R ML	JK38B01	JK38B01- R	JK38B01- M
JK38B01-R M	JK38B01-L	JK38B01-R L	JK38B01- ML	JK38B01-R ML	JK38B02-R	JK38B02- M	
JK38B02-R M	JK38B02-L	JK38B02-R L	JK38B02- ML	JK38B02-R ML	JK48B01	JK48B01- R	JK48B01- M
JK48B01-R M	JK48B01-L	JK48B01-R L	JK48B01- ML	JK48B01-R ML	JK48B02-R	JK48B02- M	
JK48B02-R M	JK48B02-L	JK48B02-R L	JK48B02- ML	JK48B02-R ML	JK60B01	JK60B01- R	JK60B01- M
JK60B01-R M	JK60B01-L	JK60B01-R L	JK60B01- ML	JK60B01-R ML	JK60B02-R	JK60B02- M	
JK60B02-R M	JK60B02-L	JK60B02-R L	JK60B02- ML	JK60B02-R ML	JK85B01	JK85B01- R	JK85B01- M
JK85B01-R M	JK85B01-L	JK85B01-R L	JK85B01- ML	JK85B01-R ML	JK85B02	JK85B02- R	JK85B02- M
JK85B02-R M	JK85B02-L	JK85B02-R L	JK85B02- ML	JK85B02-R ML	JK120B02	JK120B02- R	JK120B02- M
JK120B02- RM	JK120B02- L	JK120B02- RL	JK120B02- ML	JK120B02- RML	JK120B03- R		
JK120B03- M	JK120B03- RM	JK120B03- L	JK120B03- RL	JK120B03- ML	JK120B03- RML		
JK09A-01	JK09A-02	JK09C-01	JK09C-02	JK16A01	JK16A01-R	JK16A01-M	
JK16A01-R M	JK16A01-L	JK16A01-R L	JK16A01- ML	JK16A01-R ML	JK19A01	JK19A01- R	JK19A01- M
JK19A01-R M	JK19A01-L	JK19A01-R L	JK19A01- ML	JK19A01-R ML	JK25A01	JK25A01- R	JK25A01- M
JK25A01-R M	JK25A01-L	JK25A01-R L	JK25A01- ML	JK25A01-R ML	JK25A02-R	JK25A02- M	
JK25A02-R M	JK25A02-L	JK25A02-R L	JK25A02- ML	JK25A02-R ML	JK30A01	JK30A01- R	JK30A01- M
JK30A01-R M	JK30A01-L	JK30A01-R L	JK30A01- ML	JK30A01-R ML	JK30A02-R	JK30A02- M	
JK30A02-R M	JK30A02-L	JK30A02-R L	JK30A02- ML	JK30A02-R ML	JK38A01	JK38A01- R	JK38A01- M
JK38A01-R M	JK38A01-L	JK38A01-R L	JK38A01- ML	JK38A02-R M	JK38A02-R	JK38A02- M	



Test Report

Report No.: 190401151GZU-004

Date: Apr 18, 2019

JK38A02-R M	JK38A02-L	JK38A02-R L	JK38A02- ML	JK38A02-R ML	JK48A01	JK48A01- R	JK48A01- M
JK48A01-R M	JK48A01-L	JK48A01-R L	JK48A01- ML	JK48A01-R ML	JK48A02-R	JK48A02- M	
JK48A02-R M	JK48A02-L	JK48A02-R L	JK48A02- ML	JK48A02-R ML	JK60A01	JK60A01- R	JK60A01- M
JK60A01-R M	JK60A01-L	JK60A01-R L	JK60A01- ML	JK60A01-R ML	JK60A02-R	JK60A02- M	
JK60A02-R M	JK60A02-L	JK60A02-R L	JK60A02- ML	JK60A02-R ML	JK85A01	JK85A01- R	JK85A01- M
JK85A01-R M	JK85A01-L	JK85A01-R L	JK85A01- ML	JK85A01-R ML	JK85A02	JK85A02- R	JK85A02- M
JK85A02-R M	JK85A02-L	JK85A02-R L	JK85A02- ML	JK85A02-R ML	JK120A02	JK120A02 -R	JK120A02 -M
JK120A02- RM	JK120A02- L	JK120A02- RL	JK120A02 -ML	JK120A02- RML	JK120A03- R	JK120A03 -M	
JK120A03- RM	JK120A03- L	JK120A03- RL	JK120A03 -ML	JK120A03- RML			
JK30B02-H	JK30B02-R H	JK30B02-M H	JK30B02- RMH	JK30B02-H L	JK30B02-R HL	JK30B02- MHL	
JK30B02-R MHL	JK38B02-H	JK38B02-R H	JK38B02- MH	JK38B02-R MH	JK38B02-H L	JK38B02- RHL	
JK38B02-M HL	JK38B02-R MHL	JK48B02-H	JK48B02- RH	JK48B02-M H	JK48B02-R MH	JK48B02- HL	
JK48B02-R HL	JK48B02-M HL	JK48B02-R MHL	JK60B02- H	JK60B02-R H	JK60B02- MH		
JK60B02-R MH	JK60B02-H L	JK60B02-R HL	JK60B02- MHL	JK60B02-R MHL	JK85B02-H		
JK85B02-R H	JK85B02-M H	JK85B02-R MH	JK85B02- HL	JK85B02-R HL	JK85B02- MHL		
JK85B02-R MHL							
JK30A02-H	JK30A02-R H	JK30A02-M H	JK30A02- RMH	JK30A02-H L	JK30A02-R HL	JK30A02- MHL	
JK38A02-H	JK38A02-R H	JK38A02-M H	JK38A02- RMH	JK38A02-H L	JK38A02-R HL		
JK38A02-M HL	JK38A02-R MHL	JK48A02-H	JK48A02- RH	JK48A02-M H	JK48A02-R MH	JK48A02- HL	
JK48A02-R HL	JK48A02-M HL	JK48A02-R MHL	JK60A02- H	JK60A02-R H	JK60A02- MH		
JK60A02-R MH	JK60A02-H L	JK60A02-R HL	JK60A02- MHL	JK60A02-R MHL	JK85A02-H		
JK85A02-R H	JK85A02-M H	JK85A02-R MH	JK85A02- HL	JK85A02-R HL	JK85A02- MHL		
JK85A02-R MHL							
JK09C-01							
JK16C01	JK16C01-R	JK16C01- M	JK16C01- RM	JK16C01-L	JK16C01- RL	JK16C01- ML	JK16C01- RML
JK19C01	JK19C01-R	JK19C01- M	JK19C01- RM	JK19C01-L	JK19C01- RL	JK19C01- ML	JK19C01- RML
JK25C01	JK25C01-R	JK25C01- M	JK25C01- RM	JK25C01-L	JK25C01- RL	JK25C01- ML	JK25C01- RML



Test Report

Report No.: 190401151GZU-004

Date: Apr 18, 2019

JK25C02	JK25C02-R	JK25C02-M	JK25C02-RM	JK25C02-L	JK25C02-RL	JK25C02-ML	JK25C02-RML
JK30C01	JK30C01-R	JK30C01-M	JK30C01-RM	JK30C01-L	JK30C01-RL	JK30C01-ML	JK30C01-RML
JK30C02	JK30C02-R	JK30C02-M	JK30C02-RM	JK30C02-L	JK30C02-RL	JK30C02-ML	JK30C02-RML
JK38C01	JK38C01-R	JK38C01-M	JK38C01-RM	JK38C01-L	JK38C01-RL	JK38C01-ML	JK38C01-RML
JK38C02	JK38C02-R	JK38C02-M	JK38C02-RM	JK38C02-L	JK38C02-RL	JK38C02-ML	JK38C02-RML
JK48C01	JK48C01-R	JK48C01-M	JK48C01-RM	JK48C01-L	JK48C01-RL	JK48C01-ML	JK48C01-RML
JK48C02	JK48C02-R	JK48C02-M	JK48C02-RM	JK48C02-L	JK48C02-RL	JK48C02-ML	JK48C02-RML
JK60C01	JK60C01-R	JK60C01-M	JK60C01-RM	JK60C01-L	JK60C01-RL	JK60C01-ML	JK60C01-RML
JK60C02	JK60C02-R	JK60C02-M	JK60C02-RM	JK60C02-L	JK60C02-RL	JK60C02-ML	JK60C02-RML
JK09B-01	JK09B-02	JK09D-01	JK09D-02	JK16B01	JK16B01-R	JK16B01-M	

End of report

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