Test Report

Report No.: AGC-08009-19-08-01-001S1 Date: Sep.03, 2019 Page 1 of 17

Applicant: MID OCEAN BRANDS B.V.

Address: 7/F., Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong

Test site: 1,6/F.,Building 2,No. 1-4, Chaxi Sanwei Technical Industrial Park, Gushu, Xixiang, Baoan District, Shenzhen, Guangdong, China

Report on the submitted sample(s) said to be:

Sample Name: LUGGAGE SCALE WITH POWER BANK AND TORCH

Model: MO9016

Sample Received Date: Aug.14, 2019

Testing Period: Aug.14, 2019 to Aug.30, 2019

Test Requested: Please refer to following page(s).

Test Method: Please refer to following page(s).

Test Result: Please refer to following page(s).

Approved by:

Liulinwen, Lewis

Technical Director

Attestation of Global Compliance Std. & Tech.

Tel: +86-755 8358 3833 Fax: +86-755 2531 6612 E-mail: agc01@agc-cert.com 400 089 2118

Add: Building 2, No.171, Meihua Road, Shangmeilin, Futian District, Shenzhen, Guangdong China

Test Requested:	**Conclusion**
1.As specified by client, to determine Lead(Pb), Cadmium(Cd), Mercury(Hg) content accordance with European Directive 2006/66/EC and its amendments 2013/56/EU.	**Pass**
2.As specified by client, to determine the Pb, Cd, Hg, Cr6+, PBBs, PBDEs, DBP, BBP, DEHP, DIBP content in the submitted sample in accordance with Directive 2011/65/EU (RoHS) and its amendment directive (EU) 2015/863 on XRF and Chemical Method.	**Pass**

1. Test result of Lead(Pb), Cadmium(Cd), Mercury(Hg)

Unit: %,w/w

Test item(s)	**Test Method/ Equipment**	**MDL**	**Result(s)**	**Limit**
			41	
Lead (Pb)	IEC 62321-5:2013 ICP-OES	0.0005	N.D.	—
Cadmium (Cd)		0.0005	N.D.	0.002
Mercury (Hg)	IEC 62321-4: 2013+A1:2017 ICP-OES	0.0001	N.D.	0.0005
Conclusion	/	/	**Pass**	/

Note:

- N.D.=Not Detected(less than method detection limit)
- MDL = Method Detection Limit
- "—" =Not regulated
- As specified by client, only test the designated sample.

Sample Description

41	Electric core (Battery)

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Test Methods:

A: Screening by X-ray Fluorescence Spectrometry (XRF) :With reference to IEC 62321-3-1:2013 Ed 1.0 Screening – Lead, mercury, cadmium, total chromium and total bromine by X-ray fluorescence spectrometry

B: Chemical test:

Test Item	Test Method	Measuring Instrument	MDL
Cadmium (Cd)	IEC 62321-5:2013	ICP-OES	2 mg/kg
Lead (Pb)	IEC 62321-5:2013	ICP-OES	2 mg/kg
Mercury (Hg)	IEC 62321-4: 2013+A1:2017	ICP-OES	2 mg/kg
Non-metal Hexavalent Chromium (Cr^{6+})	IEC 62321-7-2:2017	UV-Vis	1 mg/kg
Metal Hexavalent Chromium (Cr^{6+})	IEC 62321-7-1:2015	UV-Vis	/
PBBs/PBDEs	IEC 62321-6:2015	GC-MS	5 mg/kg
Di-iso-butyl phthalate (DIBP)	IEC 62321-8:2017	GC-MS	50 mg/kg
Dibutyl phthalate (DBP)		GC-MS	50 mg/kg
Butylbenzyl phthalate (BBP)		GC-MS	50 mg/kg
Di-(2-ethylhexyl) Phthalate (DEHP)		GC-MS	50 mg/kg

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Test Results:

A、EU RoHS Directive 2011/65/EU and its amendment directives on XRF

Seq. No.	Tested Part(s)	Results(mg/kg)				
		Cd	Pb	Hg	Cr	Br
1	Black plastic shell(Outer shell)	BL	BL	BL	BL	BL
2	White transparent lampshade (Outer shell)	BL	BL	BL	BL	BL
3	Gold-plated plastic button (Outer shell)	BL	BL	BL	X*	BL
4	Silver metal block(Outer shell)	BL	BL	BL	X*	N/A
5	Silver metal hook(Tape lift)	BL	BL	BL	BL	N/A
6	Silver metal buckle(Tape lift)	BL	BL	BL	BL	N/A
7	Black belt(Tape lift)	BL	BL	BL	BL	BL
8	Black rubber strip(Backlight)	BL	BL	BL	BL	BL
9	Display screen(Backlight)	BL	BL	BL	BL	BL
10	Light guide plate(Backlight)	BL	BL	BL	BL	BL
11	Black wire jacket(Backlight)	BL	BL	BL	X*	BL
12	Red wire jacket(Backlight)	BL	BL	BL	BL	BL
13	Tin solder(Backlight)	BL	BL	BL	BL	N/A
14	White LED(Light board)	BL	BL	BL	BL	BL
15	PCB (Light board)	BL	BL	BL	BL	BL
16	Tin solder(Light board)	BL	BL	BL	BL	N/A
17	PCB	BL	BL	BL	BL	X*
18	Tin solder	BL	BL	BL	BL	N/A
19	Red wire jacket	BL	BL	BL	X*	BL
20	White wire jacket	BL	BL	BL	BL	BL
21	Yellow wire jacket	BL	BL	BL	BL	BL
22	Black wire jacket	BL	BL	BL	BL	BL
23	Nude IC	BL	BL	BL	BL	BL
24	Chip triode	BL	BL	BL	BL	X*

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Seq. No.	Tested Part(s)	Results(mg/kg)				
		Cd	Pb	Hg	Cr	Br
25	Red plastic switch button (Switch)	BL	BL	BL	BL	BL
26	Silver metal shell(Switch)	BL	BL	BL	X*	N/A
27	Black screw	BL	BL	BL	BL	N/A
28	PCB(Battery)	BL	BL	BL	BL	X*
29	Tin solder(Battery)	BL	BL	BL	BL	N/A
30	IC body(Battery)	BL	BL	BL	BL	BL
31	Tin plating(Battery)	BL	BL	BL	BL	N/A
32	USB Silver Metal Plug (USB joint) (Battery)	BL	BL	BL	BL	N/A
33	USB white plastic plug(USB joint) (Battery)	BL	BL	BL	BL	BL
34	Contact pin(USB joint) (Battery)	BL	X*	BL	BL	N/A
35	Black wire jacket(Battery)	BL	BL	BL	X*	BL
36	Red wire jacket(Battery)	BL	BL	BL	BL	BL
37	MicroSilver Metal Joint(Micro connector) (Battery)	BL	BL	BL	BL	N/A
38	Microgray plastic joint(Micro connector) (Battery)	BL	BL	BL	BL	BL
39	Contact pin(Micro connector) (Battery)	BL	BL	BL	X*	N/A
40	Green sleeving(Battery)	BL	BL	BL	BL	BL
42	White plastic piece(Battery)	BL	BL	BL	BL	BL
43	Barley paper(Battery)	BL	BL	BL	BL	BL
USB line						
44	Black handle(USB plug)	BL	BL	BL	BL	BL
45	USB white plastic plug(USB plug)	BL	BL	BL	BL	BL
46	Contact pin(USB plug)	BL	BL	BL	BL	N/A
47	USB Silver Metal Plugv(USB plug)	BL	BL	BL	BL	N/A
48	Tin solder(USB plug)	BL	BL	BL	BL	N/A
49	Tin solder(Micro plug)	BL	BL	BL	BL	N/A

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Seq. No.	Tested Part(s)	Results(mg/kg)				
		Cd	Pb	Hg	Cr	Br
50	Microgray plastic plug (Micro plug)	BL	BL	BL	BL	BL
51	Contact pin(Micro plug)	BL	BL	BL	X*	N/A
52	Thimble(Micro plug)	BL	BL	BL	X*	N/A
53	MicroSilver Metal Plug(Micro plug)	BL	BL	BL	X*	N/A
54	Black outer wire jacket(Wire rod)	BL	BL	BL	BL	BL
55	Milky white linen(Wire rod)	BL	BL	BL	BL	BL
56	Wire core(Wire rod)	BL	BL	BL	BL	N/A
57	Green wire jacket(Wire rod)	BL	BL	BL	BL	BL

Element	Unit	NonN/Ametal	Metal	Composite Material
Cd	mg/kg	BL≤70N/A3σ<X <130+3σ≤OL	BL≤70N/A3σ<X <130+3σ≤OL	BL≤50N/A3σ<X <150+3σ≤OL
Pb	mg/kg	BL≤700N/A3σ<X <1300+3σ≤OL	BL≤700N/A3σ<X <1300+3σ≤OL	BL≤500N/A3σ<X <1500+3σ≤OL
Hg	mg/kg	BL≤700N/A3σ<X <1300+3σ≤OL	BL≤700N/A3σ<X <1300+3σ≤OL	BL≤500N/A3σ<X <1500+3σ≤OL
Cr	mg/kg	BL≤700N/A3σ<X	BL≤700N/A3σ<X	BL≤500N/A3σ<X
Br	mg/kg	BL≤300N/A3σ<X	N/A	BL≤250N/A3σ<X

Note: BL= Below Limit
OL= Over limited
X= Inconclusive
"N/A"= Not regulated
*= Scanning by XRF and detected by chemical method. The test results of chemical method please refer to next pages.

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Remark:

i Results were obtained by XRF for primary scanning, and further chemical testing by ICP (for Cd, Pb, Hg), UVN/AVis (for Cr(Ⅵ)) and GCN/AMS (for PBBs, PBDEs) are recommended to be performed, if the concentration exceeds the above warning value according to IEC 62321N/A3N/A1:2013 Ed 1.0.

ii The XRF scanning test for RoHS elements – The reading may be different to the actual content in the sample be of nonN/Auniformity composition.

iii The maximum permissible limit is quoted from RoHS directive 2011/65/EU and its amendment directive (EU) 2015/863::

RoHS Restricted Substances	Maximum Concentration Value (mg/kg) (by weight in homogenous materials)
Cadmium (Cd)	100
Lead (Pb)	1000
Mercury (Hg)	1000
Hexavalent Chromium (Cr(Ⅵ))	1000
Polybrominated biphenyls (PBBs)	1000
Polybrominated diphenylethers (PBDEs)	1000
Di-iso-butyl phthalate (DIBP)	1000
Dibutyl phthalate (DBP)	1000
Butylbenzyl phthalate (BBP)	1000
Di-(2-ethylhexyl) Phthalate (DEHP)	1000

Disclaimers:

This XRF Scanning report is for reference purposes only. The applicant shall make its/his/her own judgment as to whether the information provided in this XRF screening report is sufficient for its/his/her purposes.

The result shown in this XRF scanning report will differ based on various factors, including but not limited to, the sample size, thickness, area, surface flatness, equipment parameters and matrix effect (e.g. plastic, rubber, metal, glass, ceramic etc.). Further wet chemical preN/Atreatment with relevant chemical equipment analysis are required to obtain quantitative data.

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B、The Test Results of Chemical Method:

1) The Test Results of Pb

Test Item(s)	Unit	Result(s)
		34
Lead(Pb)	mg/kg	270

Note: N.D. = Not Detected or less than MDL
mg/kg = parts per million
MDL = Method Detection Limit

2) The Test Results of nonN/Ametal Cr^{6+}

Test Item(s)	Unit	Result(s)				Limit
		3	11	19	35	
Hexavalent Chromium(Cr^{6+})	mg/kg	N.D.	N.D.	N.D.	N.D.	1000

Note: N.D. = Not Detected or less than MDL
mg/kg = parts per million
MDL = Method Detection Limit

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3)The Test Results of metal Cr^{6+}

Test Item(s)	MDL	Result(s)						Limit
		4	26	39	51	52	53	
Hexavalent Chromium (Cr^{6+})	See note	Negative	Negative	Negative	Negative	Negative	Negative	#

Note:

- Negative = Absence of Cr(Ⅵ) on the tested areas
- MDL = Method Detection Limit
- Boiling-water-extraction:

Number	Colorimetric result (Cr(VI) concentration)	**Qualitative result**
1	The sample solution is<the 0,10 μg/cm^2 equivalent comparison standard solution	The sample is negative for Cr(VI) − The Cr(VI) concentration is below the limit ofquantification. The coating is considered a non-Cr(VI) based coating.
2	The sample solution is ≥ the 0,10 μg/cm^2 and ≤ the0,13 μg/cm^2 equivalent comparison standard solutions	The result is considered to be inconclusive – Unavoidable coating variations may influence thedetermination.
3	The sample solution is > the 0,13 μg/cm^2 equivalent comparison standard solution	The sample is positive for Cr(VI) − The Cr(VI) concentration is above the limit of quantification andthe statistical margin of error. The sample coating isconsidered to contain Cr(VI).

- # =Negative indicates the absence of Cr(Ⅵ) on the tested areas concentration is below the limit of quantification. The coating is considered a non-Cr(VI) based coating.

Uncertainty indicates the absence of Cr(Ⅵ) on the tested areasunavoidable coating variations may influence the determination.

Positive indicates the presence of Cr(Ⅵ) on the tested areas concentration is above the limit of quantification andthe statistical margin of error. The sample coating isconsidered to contain Cr(VI).

Storage conditions and production date of the tested sample are unavailable and thus result of Cr(VI) represent status of the sample at the time of testing.

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4) The Test Results of PBBs & PBDEs

Unit: mg/kg

Item(s)	MDL	Result(s)			Limit
		17	24	28	
Polybrominated Biphenyls (PBBs)					
Monobromobiphenyl	5	N.D.	N.D.	N.D.	Total PBBs Content <1000
Dibromobiphenyl	5	N.D.	N.D.	N.D.	
Tribromobiphenyl	5	N.D.	N.D.	N.D.	
Tetrabromobiphenyl	5	N.D.	N.D.	N.D.	
Pentabromobiphenyl	5	N.D.	N.D.	N.D.	
Hexabromobiphenyl	5	N.D.	N.D.	N.D.	
Heptabromobiphenyl	5	N.D.	N.D.	N.D.	
Octabromobiphenyl	5	N.D.	N.D.	N.D.	
Nonabromodiphenyl	5	N.D.	N.D.	N.D.	
Decabromodiphenyl	5	N.D.	N.D.	N.D.	
Total content	/	N.D.	N.D.	N.D.	
Polybrominated Diphenylethers (PBDEs)					
Monobromodiphenyl ether	5	N.D.	N.D.	N.D.	Total PBDEs Content <1000
Dibromodiphenyl ether	5	N.D.	N.D.	N.D.	
Tribromodiphenyl ether	5	N.D.	N.D.	N.D.	
Tetrabromodiphenyl ether	5	N.D.	N.D.	N.D.	
Pentabromodiphenyl ether	5	N.D.	N.D.	N.D.	
Hexabromodiphenyl ether	5	N.D.	N.D.	N.D.	
Heptabromodiphenyl ether	5	N.D.	N.D.	N.D.	
Octabromodiphenyl ether	5	N.D.	N.D.	N.D.	
Nonabromodiphenyl ether	5	N.D.	N.D.	N.D.	
Decabromodiphenyl ether	5	N.D.	N.D.	N.D.	
Total content	/	N.D.	N.D.	N.D.	
Conclusion	/	**Pass**	**Pass**	**Pass**	/

Note: N.D. = Not Detected or less than MDL
mg/kg = parts per million
MDL = Method Detection Limit

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3.Test result of DBP, BBP, DEHP, DIBP content

Unit: mg/kg

Test item / Seq. No.	DIBP	DBP	BBP	DEHP	Conclusion
	1000	1000	1000	1000	
1	N.D.	N.D.	N.D.	N.D.	Pass
2	N.D.	N.D.	N.D.	N.D.	Pass
3	N.D.	N.D.	N.D.	N.D.	Pass
7	N.D.	N.D.	N.D.	N.D.	Pass
8	N.D.	N.D.	N.D.	N.D.	Pass
9	N.D.	N.D.	N.D.	N.D.	Pass
10	N.D.	N.D.	N.D.	N.D.	Pass
11	N.D.	N.D.	N.D.	N.D.	Pass
12	N.D.	N.D.	N.D.	N.D.	Pass
14	N.D.	N.D.	N.D.	N.D.	Pass
15	N.D.	N.D.	N.D.	N.D.	Pass
17	N.D.	N.D.	N.D.	N.D.	Pass
19	N.D.	N.D.	N.D.	N.D.	Pass
20	N.D.	N.D.	N.D.	N.D.	Pass
21	N.D.	N.D.	N.D.	N.D.	Pass
22	N.D.	N.D.	N.D.	N.D.	Pass
23	N.D.	N.D.	N.D.	N.D.	Pass
24	N.D.	N.D.	N.D.	N.D.	Pass
25	N.D.	N.D.	N.D.	N.D.	Pass
28	N.D.	N.D.	N.D.	N.D.	Pass
30	N.D.	N.D.	N.D.	N.D.	Pass
33	N.D.	N.D.	N.D.	N.D.	Pass
35	N.D.	N.D.	N.D.	N.D.	Pass
36	N.D.	N.D.	N.D.	N.D.	Pass
38	N.D.	N.D.	N.D.	N.D.	Pass
40	N.D.	N.D.	N.D.	N.D.	Pass
42	N.D.	N.D.	N.D.	N.D.	Pass
43	N.D.	N.D.	N.D.	N.D.	Pass

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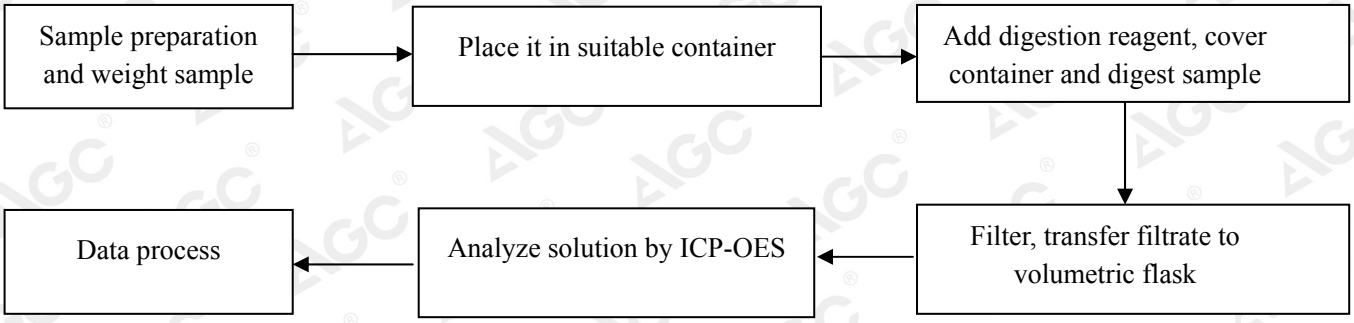
Test item / Seq. No.	DIBP	DBP	BBP	DEHP	Conclusion
	1000	1000	1000	1000	
44	N.D.	N.D.	N.D.	N.D.	Pass
45	N.D.	N.D.	N.D.	N.D.	Pass
50	N.D.	N.D.	N.D.	N.D.	Pass
54	N.D.	N.D.	N.D.	N.D.	Pass
55	N.D.	N.D.	N.D.	N.D.	Pass
57	N.D.	N.D.	N.D.	N.D.	Pass

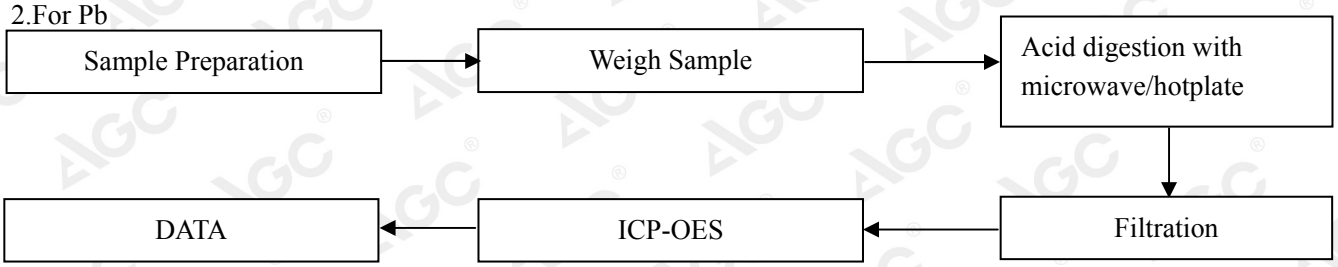
Note: 1. MDL＝Method Detection Limit
2. N.D.=Not Detected(less than method detection limit)

Test Flow Chart

1.For Lead(Pb), Cadmium(Cd), Mercury(Hg)(2006/66/EC)



2.For Pb



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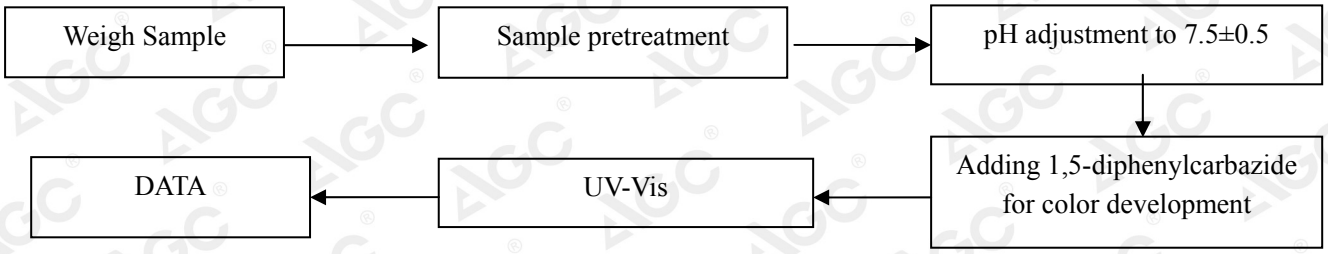
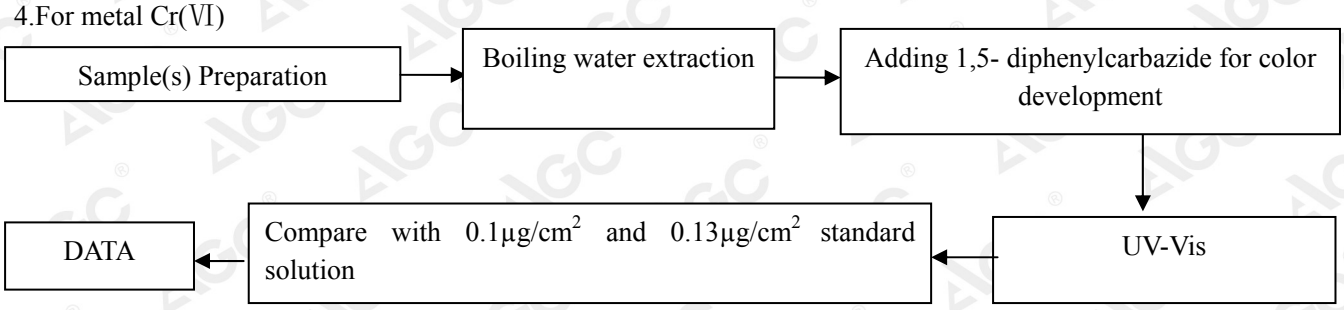
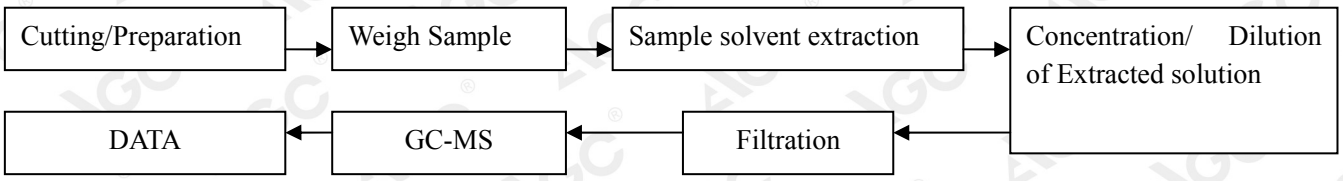
3.For nonN/Ametal Cr(Ⅵ)



4.For metal Cr(Ⅵ)



5. For PBBs, PBDEs, DBP, BBP, DEHP, DIBP



Test result on specimen No.49 was resubmitted on Aug,28,2019

This report is to supersede the report with No.: AGC-08009-19-08-01-001dated on Aug.30, 2019

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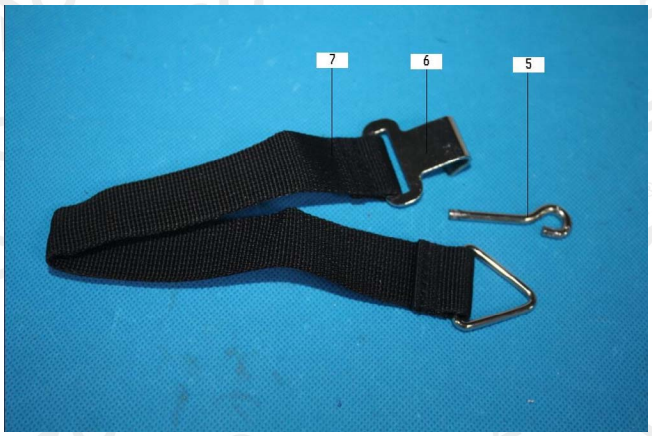
The photo of the sample

1

2



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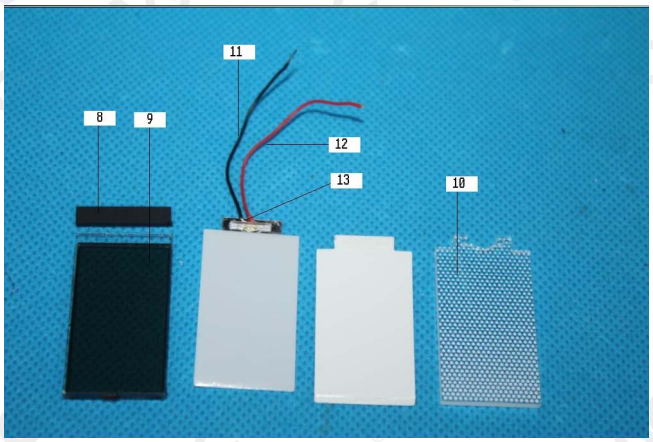

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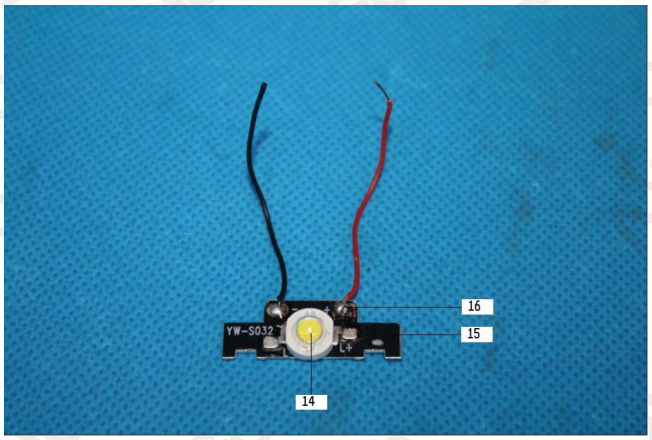

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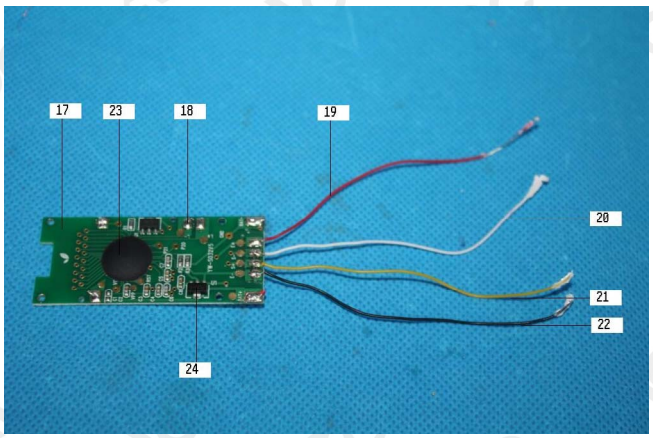

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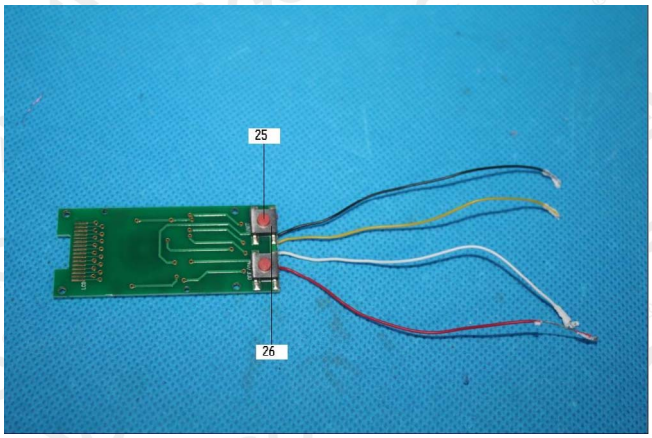

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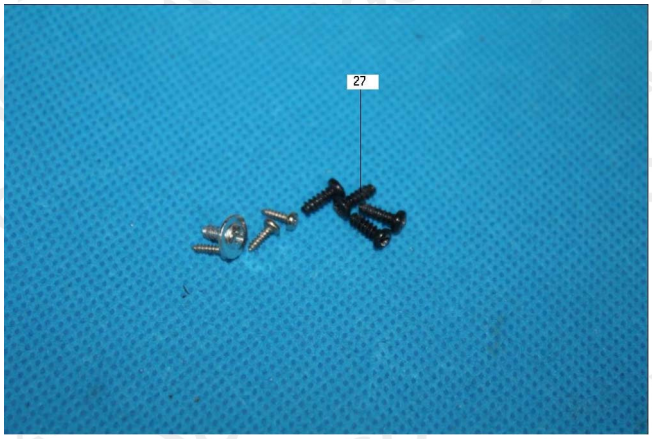

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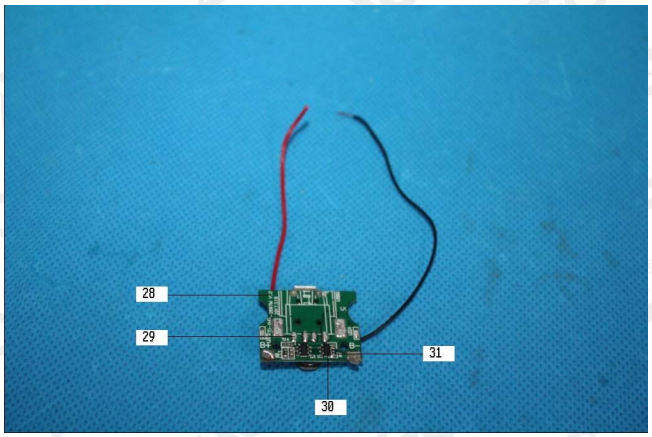

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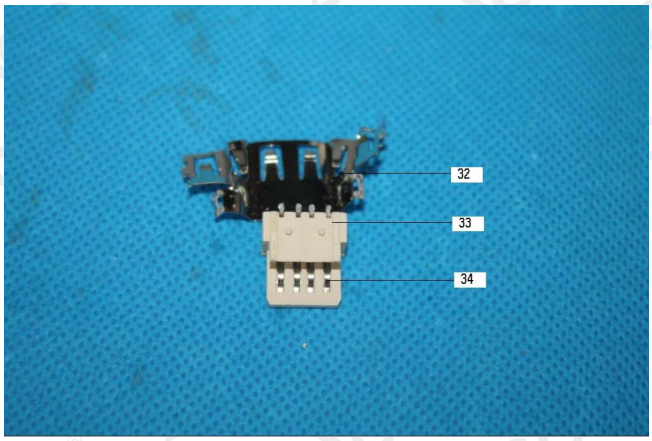

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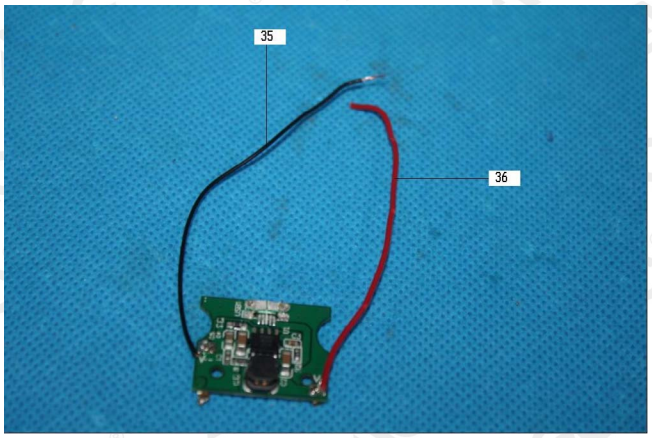

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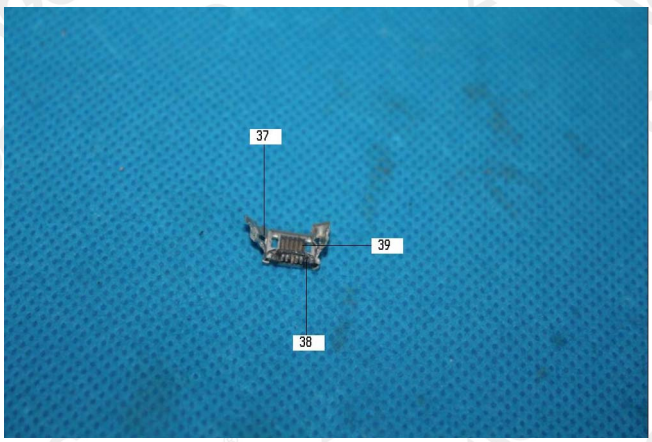

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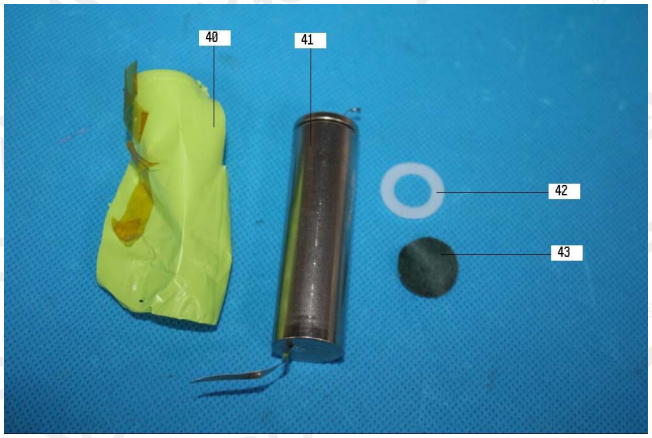
Tel: +86-755 8358 3833 Fax: +86-755 2531 6612 E-mail: agc01@agc-cert.com 400 089 2118
Add: Building 2, No.171, Meihua Road, Shangmeilin, Futian District, Shenzhen, Guangdong China



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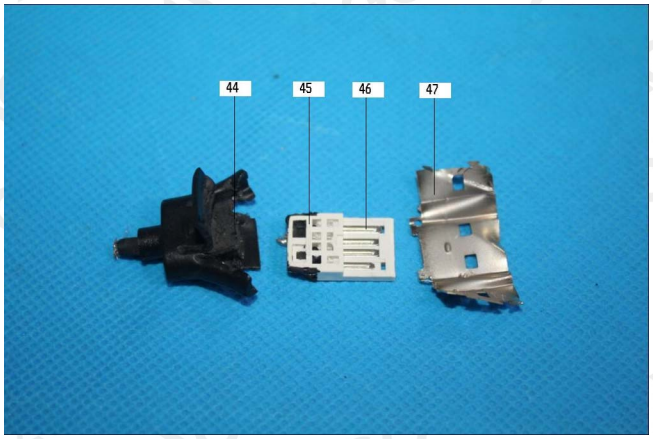

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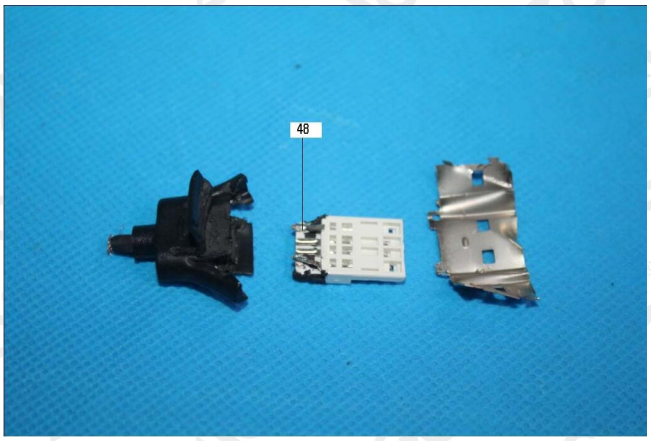

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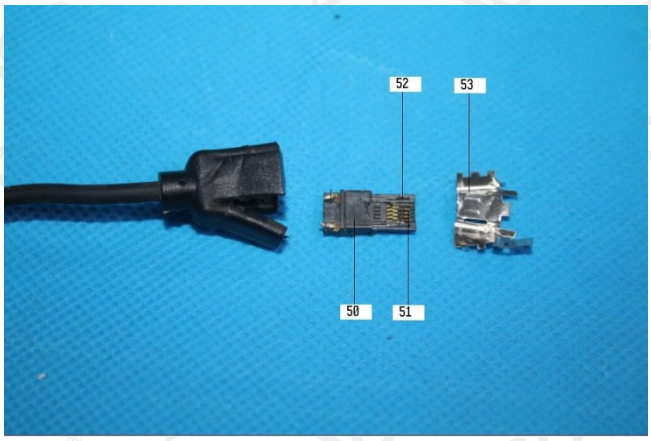

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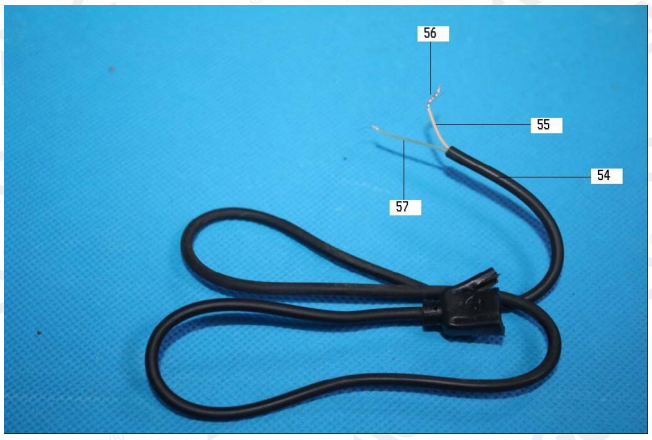

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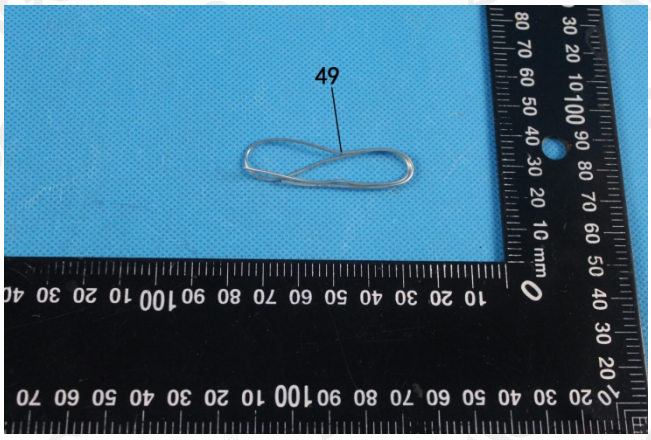

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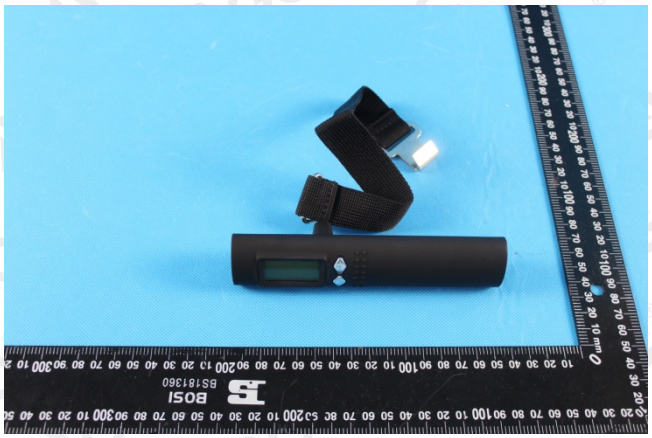

AGC-08009-19-08-01-001S1

AGC authenticate the photo only on original report

*** End of Report ***

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