Report No.: ATJC26041380007900R

Applicant	GUANGZHOU ZHANFENG SMART CARD TECHNOLOGY CO., LTD.
Address	5/F, Building A5, NO.11, Kaiyuan Road, Science City, High-tech Industrial Development Zone, Guangzhou.
Manufacturer	GUANGZHOU ZHANFENG SMART CARD TECHNOLOGY CO., LTD.
Address	5/F, Building A5, NO.11, Kaiyuan Road, Science City, High-tech Industrial Development Zone, Guangzhou.

The following sample(s) was /were submitted and identified on behalf of the clients as :

Sample Name:	Flexible Anti-Metal RFID Tag
Model Name:	ZF Flexible Anti-Metal RFID Tag
Trade Name:	N/A
Sample Received Date:	Apr. 13, 2026
Testing Period:	Apr. 14 - 17, 2026
Report Date:	Apr.17, 2026
Test Requested:	1.As specified by client ,to screen Lead(Pb),Cadmium(Cd),Mercury(Hg), Chromium(Cr)and Bromine(Br)in the submitted sample(s)by XRF. 2. As specified by client ,when screening results exceed the XRF screening limit in IEC62321:2013 Edition 1.0,further use of wet chemical methods are required to test Lead(Pb),Cadmium(Cd),Mercury(Hg),Hexavalent Chromium(Cr(VI)), Polybrominated Biphenyls(PBBs),Polybrominated diphenyl ethers (PBDEs) and Phthalates such as Bis(2-ethylhexyl) phthalate (DEHP) , Butyl benzyl phthalate (BBP), Dibutylphthalate (DBP) , and Diisobutyl phthalate (DIBP) in the submitted sample(s)
Test Method	Please refer to next page(s).
Test Result	Please refer to next page(s).
Test conclusion:	Based upon the performed tests by submitted samples, the test results comply with the limits of the RoHS 2.0 Directive (EU) 2015/863 and (EU)2017/2102 amending Annex II to Directive 2011/65/EU.

Checked by

Aria Yan

Aria Yan / Engineer
Apr. 17, 2026

Reviewed by

Henry Tian / Manager
Apr. 17, 2026

Note:

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1. Pb, Cd, Cr(VI), Hg, PBBs&PBDEs
Test Method:
A. Disassembly, disjointment and mechanical sample preparation
—Ref. to IEC 62321-2:2014, Disassembly, disjointment and mechanical sample preparation.
B. With reference to IEC 62321-1:2013, tests were performed for the samples indicated by the photos in this report.
(1) Screening – Lead, mercury, cadmium, total chromium and total bromine
—Ref. to IEC 62321-3-1:2013, Screening for Lead, mercury, cadmium, total chromium and total bromine by X-ray fluorescence spectrometry.

(2) Wet chemical test method

Test Item(s)	Test Method	Test Equipment	Unit	MDL	Limit
Pb	IEC62321-5:2013	ICP-OES	mg/kg	0	1000
Cd	IEC62321-5:2013	ICP-OES	mg/kg	0	100
Hg	IEC 62321-4:2013+A1:2017	ICP-OES	mg/kg	0	1000
Cr(VI) (Metal)	IEC62321-7-1:2015	UV-Vis	μg/cm2	0.08	0.13
Cr(VI) (Nonmetal)	IEC62321-7-2:2017	UV-Vis	mg/kg	7	1000
PBBs	IEC62321-6:2015	GC-MS	mg/kg	5	100
PBDEs	IEC62321-6:2015	GC-MS	mg/kg	6	1000

PBBs		**PBDEs**	
Monobromobiphenyl	Hexabromobiphenyl	Monobromodiphenyl ether	Hexabromodiphenyl ether
Dibromobipheny	Heptabromobiphenyl	Dibromodiphenyl ether	Heptabromodiphenyl ether
Tribromobiphenyl	Octabromobipheny	Tribromodiphenyl ether	Octabromodiphenyl ether
Tetrabromobiphenyl	Nonabromobiphenyl	Tetrabromodiphenyl ether	Nonabromodiphenyl ether
Pentabromobiphenyl	Decabromobipheny	Pentabromodiphenyl ether	Decabromodiphenyl ether

Test result(s):

No.	Sample Description	Results of XRF					Chemical confirmation results (mg/kg)	Conclusion
		Pb	Cd	Hg	Cr	Br		
1	White sponge tape	BL	BL	BL	BL	BL	---	PASS
2	Flexible metal	BL	BL	BL	BL	--	---	PASS

Remark:

a. It is the result on total Br while test item on restricted substances is PBBs/PBDEs. It is the result on total Cr while test item on restricted substances is Cr(VI).

b. The XRF screening test for RoHS elements-The reading may be different to the actual content in the sample be of non-uniformity composition.

c. Results are obtained by EDXRF for primary screening, and further chemical testing by ICP-OES (for Pb, Cd, Hg), UV-VIS for Cr(VI) and GC/MSD (for PBBs/PBDEs) is recommended to be performed if the concentration exceeds the below warming value according to IEC 62321-3-1:2013.

Attached table 1, XRF screening limits in mg/kg in different matrices :

XRF detection limits in mg/kg for regulated elements in various materia

Materials	Concentration (mg/kg)				
	Cd	Cr	Pb	Hg	Br
Polymeric	BL≤60<X<140≤OL	BL≤640<X	BL≤670<X<1330≤OL	BL≤660<X<1340≤OL	BL≤290<X
Metallic	BL≤60<X<140≤OL	BL≤640<X	BL≤670<X<1330≤OL	BL≤660<X<1340≤OL	---
Composite materials	BL≤40<X<160≤OL	BL≤440<X	BL≤470<X<1530≤OL	BL≤460<X<1540≤OL	BL≤240<X

Note：

- BL= Below Limit
- OL=Over Limit
- X = inconclusive, the region where need further chemical testing by ICP-OES (for Pb, Cd, Hg), UV-Vis (for Cr(VI)) and GC-MS (for PBBs, PBDEs).
- --- = Not Applicable
- mg/kg=0.0001%
- N.D.=Not Detected(<MDL)
- MDL= Method Detection Limit
- Negative = Absence of Cr(VI), the detected Cr(VI) concentration in the boiling water extraction solution is less than 0.02 mg/kg with 50cm2 sample surface area used.
- *=According to 2011/65/EU Annex,point *Lead as an alloying element is steel containing up to 0.35% lead by weight, aluminum containing up to 0.4% lead by weight and as a copper alloy, containing up to 4% lead by weight can be exempted.

2. Phthalates—DBP, BBP, DEHP & DIBP

Test Item(s)	Test Method	Test Equipment	Unit	MDL	Limit
Dibutyl Phthalate(DBP)	IEC62321-8:2017	GC-MS	mg/kg	30	1000
Benzylbutyl Phthalate (BBP)	IEC62321-8:2017	GC-MS	mg/kg	30	1000
Di-(2-ethylhexyl)Phthalate(DEHP)	IEC62321-8:2017	GC-MS	mg/kg	30	1000
Diisobutyl phthalate (DIBP)	IEC62321-8:2017	GC-MS	mg/kg	30	1000

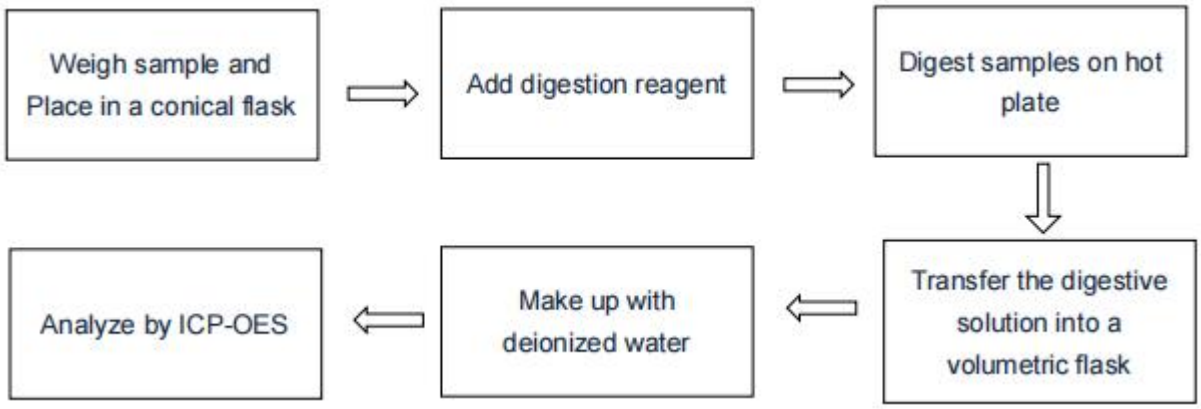
Test result(s):

No.	Test item (mg/kg)				Conclusion
	DBP	BBP	DEHP	DIBP	
1	N.D.	N.D.	N.D.	N.D.	PASS
2	N.D.	N.D.	N.D.	N.D.	PASS

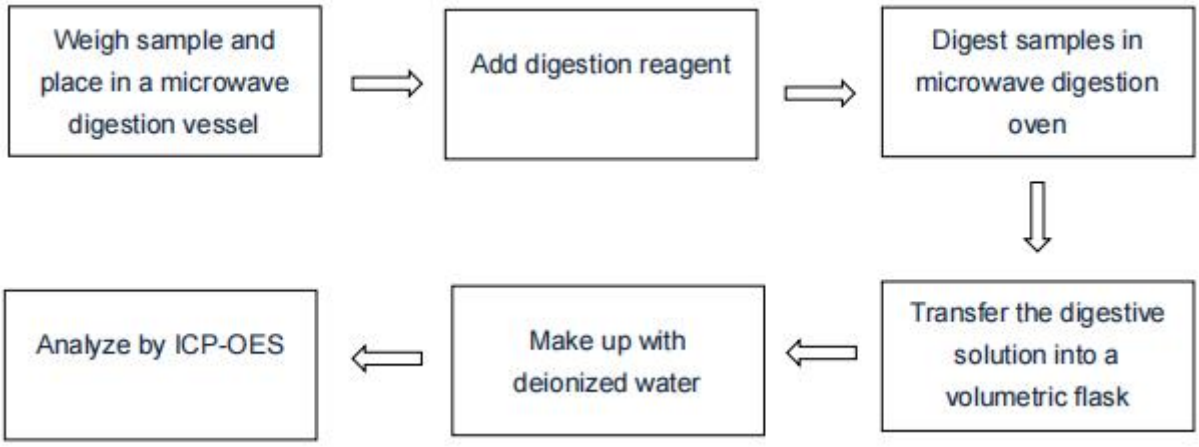
Note：
- mg/kg=0.0001%
- ND=Not Detected(<MDL)

1.Chemical Test Process:

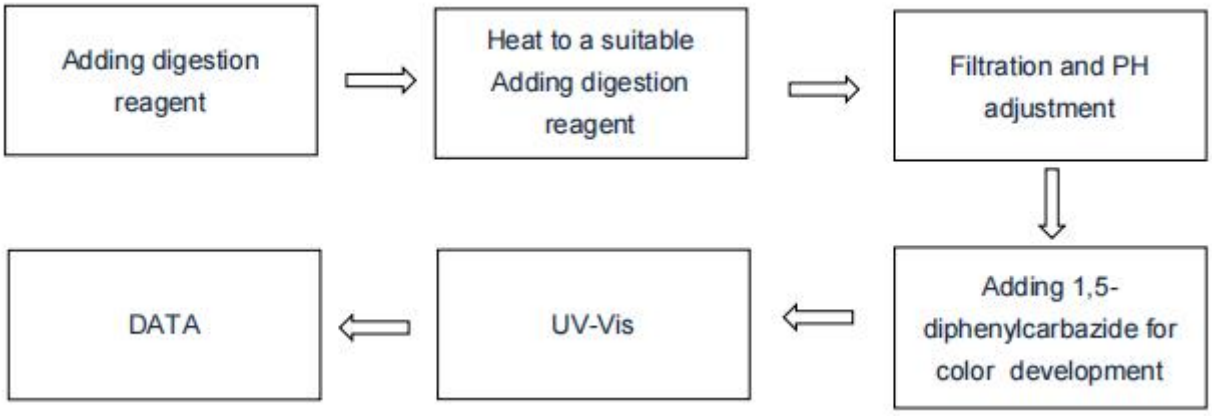
Test for Cd/Pb Content



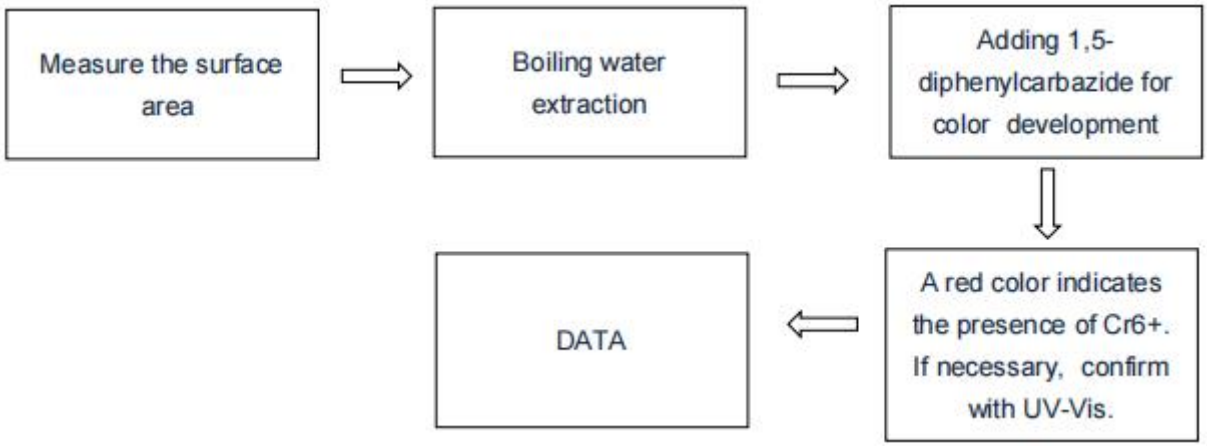
2.Test for Hg Content



3. Test for Chromium (VI) Content
Nonmetal material



Metal material



3. Test for PBBs/PBDES/DIBP/DBP/BBP/DEHP Content

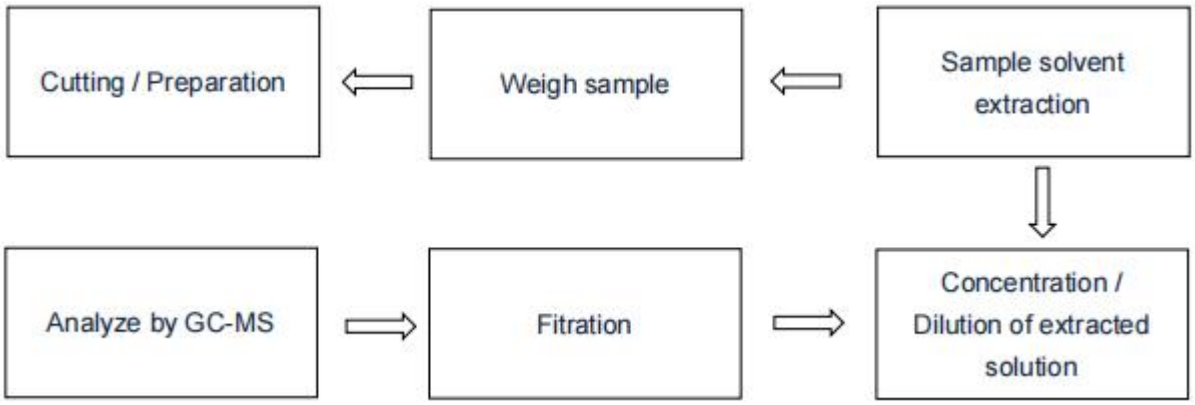


Photo documentation

Photo 1

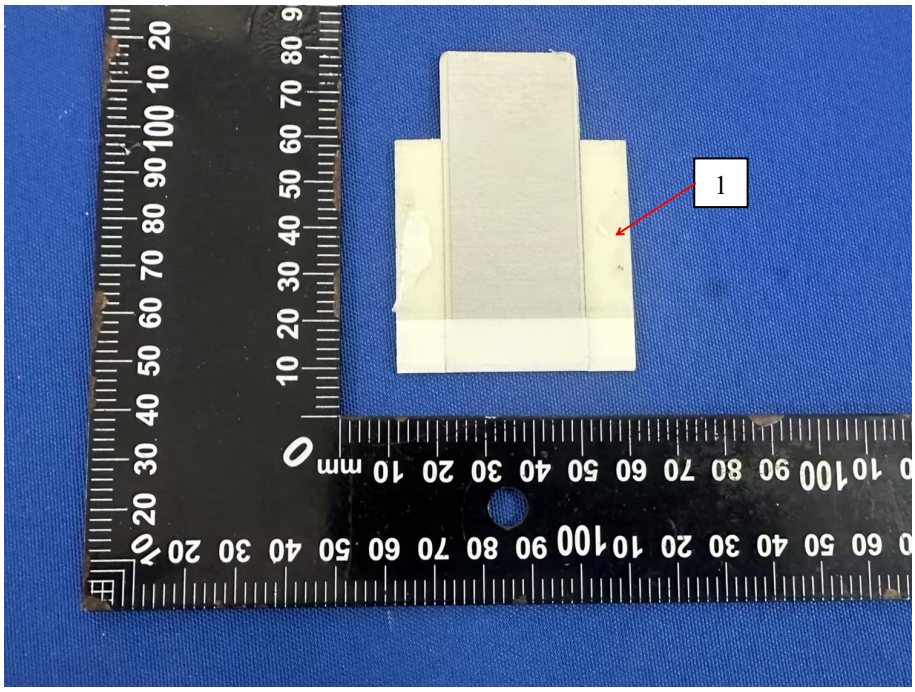
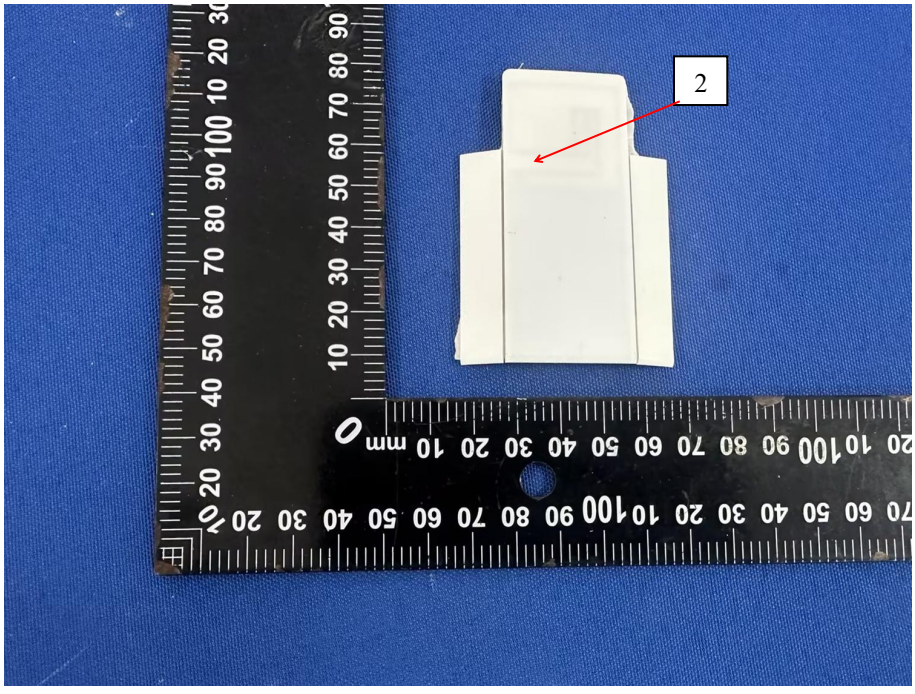


Photo 2



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