

Report No.: 168133499f 002

Client: FLASHBAY ELECTRONICS

Contact Information: 1-4/F of Bldg No.3, Bldg No.2, 101-501F of Bldg No.1, Xifengcheng Industrial Park, No. 2 Fuyuan Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, P. R. China

Test item(s): 3 materials

Identification/ STRAW

Model No(s): STRAIGHT/FUNKY/FOLD

Sample Receiving date: 2019-12-10

Testing Period: 2019-12-18 to 2019-12-30

Test Specification:

Test result:

Customer's requirement:


- | | |
|---|------|
| <ol style="list-style-type: none"> Cadmium, Lead, Chromium (VI), Mercury, Polybrominated biphenyls (PBB) and Polybrominated diphenyl ethers (PBDE), ROHS Phthalates (BBP, DBP, DEHP, DIBP)
According to RoHS(recast): Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment, 2011/65/EU Annex II and its amendment Directive (EU) 2015/863 | PASS |
|---|------|

Other information:

Country of Origin: China

The report 168133499f 002 supersedes report 168133499f 001.

For and on behalf of
TÜV Rheinland (Shenzhen) Co., Ltd.



2020-01-16

Shirley Zheng / Assistant Project Engineer

Date

Name/Position

Test result is drawn according to the kind and extent of tests performed.

This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.

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Material List:

Item: STRAW
STRAIGHT/FUNKY/FOLD

Material No.	Material	Color	Location
A001	Metal	Silvery	Refer to photo
A002	Silicon	Translucent	Refer to photo
A003	Silicon	White	Refer to photo

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1. Cadmium, Lead, Chromium (VI), Mercury, Polybrominated biphenyls (PBB) and Polybrominated diphenyl ethers (PBDE)

Test Method: Total Cadmium, Lead, Mercury, Chromium
- Ref. to IEC 62321-4:2013+AMD1:2017 and IEC 62321-5:2013

Chromium (VI)
- For Metal material - Ref. to IEC 62321-7-1:2015
- For Plastic or Electronic material - Ref. to IEC 62321-7-2:2017
- For Leather material - Ref. to EN ISO 17075-1:2017

PBBs, PBDEs - Ref. to IEC 62321-6:2015

Material List:

Material No.	Material	Color	Location	Test plan
				A = Test HM only B = Test FR only C = Test HM + FR
A001	Metal	Silvery	Refer to photo	A
A002	Silicon	Translucent	Refer to photo	C
A003	Silicon	White	Refer to photo	C

Abbreviation: HM (Heavy metal) = Cd, Pb, Hg, Cr (VI)
FR (Flame Retardant) = PBBs, PBDEs

Remark :

- Component(s)/ materials(s) with an area of less than 2mm x2 mm will not be selected for testing according to RoHS Directive 2011/65/EU due to technical reason.
- For the test sample does not have detail materials information provided by client, visually identical materials (e.g. wire insulation, solder points, etc.) will be considered as the same material.
- Solder points on a printing circuit board will be examined several times based on optical anomalies or discoloration of the solder point(s) unless the solder point(s) is obviously generated automatically during production.
- All other materials will be sampled and tested at one test point representatively.

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Test Result:

	Cd	Cr(VI)	Pb	Hg	PBBs (*)	PBDEs (*)
Maximum Permissible Limit (%)	0.01	0.1	0.1	0.1	0.1	0.1

Material No.	RL (%)					
	Cd	Cr(VI)	Pb	Hg	PBBs (*)	PBDEs (*)
	RL (%)					
	0.0002	0.0002	0.0002	0.0002	-- (*)	-- (*)
A001	n.d.	(*1)	n.d.	n.d.	n.a.	n.a.
A002	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
A003	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.

Material No.	Boiling-water-extraction for Cr (VI) (*1)
A001	negative

Abbreviation:

- Pb = Lead
- Cd = Cadmium
- Hg = Mercury
- Cr = Chromium
- Cr (VI) = Chromium (VI)
- PBBs = Total Polybrominated Biphenyls
- PBDEs = Total Polybrominated Diphenyl Ethers
- n.d. = Not Detected (<RL)
- RL = Reporting Limit
- n.a. = Not Applicable
- % = percentage

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Remark:

- *1 The Chromium (VI) content in surface layer have been confirmed with reference to IEC 62321-7-1:2015 Annex.

	Chromium (VI) concentration	Qualitative result
Negative	<0.1µg/cm ²	The sample is negative (-ve) for Cr(VI). The Cr(VI) concentration is below the limit of quantification. The coating is considered a non-Cr(VI) based coating
Inconclusive	≥0.1µg/cm ² and ≤0.13 µg/cm ²	The result is considered to be inconclusive. Unavoidable coating variations may influence the determination. Recommendation: if additional samples are available, perform a total of 3 trials to increase sampling surface area. Use the averaged result of the 3 trails for the final determination.
Positive	>0.13 µg/cm ²	The sample is positive (+ve) for Cr(VI). Concentration is above the limit of quantification and the statistical margin of error. The sample coating is considered to contain Cr(VI).

- * The reporting limit for each individual PBBs and individual PBDEs are :

Reporting Limit (%)		
PBBs	Bromobiphenyl	0.0001
	Dibromobiphenyl	0.0001
	Tribromobiphenyl	0.0001
	Tetrabromobiphenyl	0.0001
	Pentabromobiphenyl	0.0002
	Hexabromobiphenyl	0.0002
	Heptabromobiphenyl	0.0002
	Octabromobiphenyl	0.0005
	Nonabromobiphenyl	0.0005
	Decabromobiphenyl	0.0005
PBDEs	Bromodiphenylether	0.0001
	Dibromodiphenyl ether	0.0001
	Tribromodiphenyl ether	0.0001
	Tetrabromodiphenyl ether	0.0001
	Pentabromodiphenyl ether	0.0002
	Hexabromodiphenyl ether	0.0002
	Heptabromodiphenyl ether	0.0002
	Octabromodiphenyl ether	0.0005
	Nonabromodiphenyl ether	0.0005
	Decabromodiphenyl ether	0.0005

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BBP, DBP, DEHP, DIBP content

Test Method: IEC 62321-8:2017

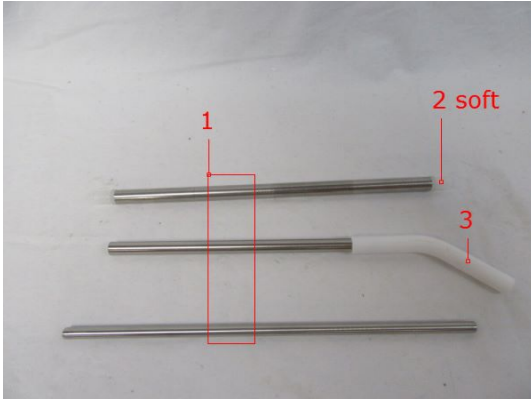
Test Result:

	BBP	DBP	DEHP	DIBP
Maximum permissible Limit (%)	0.1	0.1	0.1	0.1

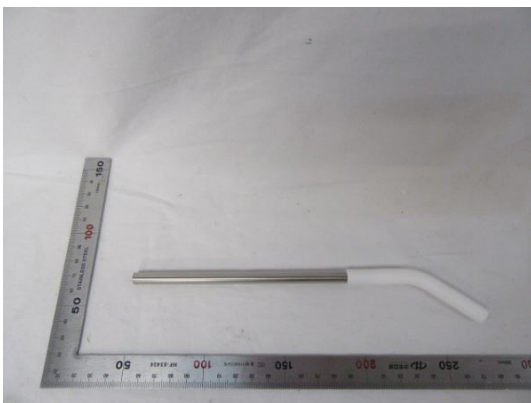
Test No.	Material No.	RL (%)			
		RL (%)			
		BBP	DBP	DEHP	DIBP
		0.005	0.005	0.005	0.005
T001	A002	n.d.	n.d.	n.d.	n.d.
T002	A003	n.d.	n.d.	n.d.	n.d.

Abbreviation: BBP= Benzylbutyl phthalate
 DBP= Dibutyl phthalate
 DEHP= Bis(2-ethylhexyl) phthalate
 DIBP= Diisobutyl phthalate
 n.d.= Not Detected (< Reporting Limit)
 RL = Reporting Limit
 N.A. = Not Applicable
 %= percentage

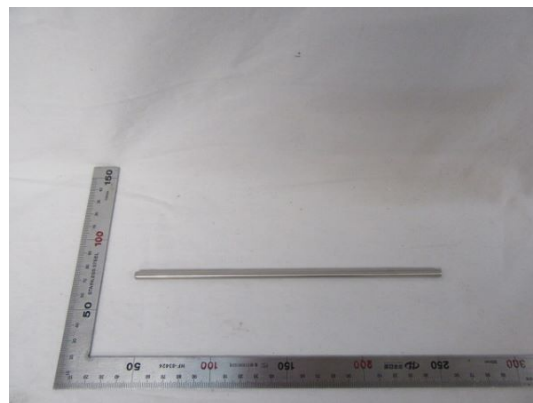
Sample Photos



Product



Product



Product

- END -

