



TEST REPORT

Report No.: STR16066063R

Date: 2016-06-23

Page 2 of 4

RoHS hazardous substances test

Test method:

IEC 62321-3-1:2013, XRF screening

IEC 62321-4-2013 for Hg, analyzed by ICP-OES

IEC 62321-5-2013 for Cd and Pb, analyzed by ICP-OES

IEC 62321:2008 Annex C and/or IEC 62321-7-1:2015 for Cr⁶⁺, analyzed by UV-VIS

IEC 62321-6-2015 for PBBs and PBDEs, analyzed by GC-MS

1. XRF results:

No.	Name of the sample	Part name	Sample Description	Results				
				Pb	Cd	Hg	Cr	Br
1-1-1	TSA Approved Luggage Lock	Shell	White plastic	BL	BL	BL	BL	BL
1-1-2			Black plastic	BL	BL	BL	BL	BL
1-2-1		Screw	Silvery metal	BL	BL	BL	BL	NA
1-3-1		Metallic cable	Transparent plastic	BL	BL	BL	BL	BL
1-3-2			Silvery metal cable	BL	BL	BL	BL	NA
1-3-3			Silvery metal tip	BL	BL	BL	IN	NA
1-3-4			Black metal cable	BL	BL	BL	BL	NA
1-4-1		Decoration	White plastic with printing	BL	BL	BL	BL	BL
1-5-1		Coded lock	Silvery metal	BL	BL	BL	IN	NA
1-6-1		Key cylinder	Silvery metal	BL	BL	BL	BL	NA
1-6-2			Metal spring	BL	BL	BL	IN	NA
1-7-1		Metal (inside)	Silvery metal	BL	BL	BL	BL	NA
1-7-2			Silvery metal	BL	BL	BL	BL	NA
1-7-3			Silvery metal	BL	BL	BL	BL	NA
1-7-4			Silvery metal	BL	BL	BL	BL	NA

2. Chemical confirm results:

Test Item(s)	Result (mg/kg)					Limit (mg/kg)
	1-3-3	1-5-1	1-6-2	---	---	
Hexavalent Chromium (Cr ⁶⁺)	Negative	Negative	Negative	Negative	Negative	--
Comment	PASS	PASS	PASS	PASS	PASS	--

Remark:

1. BL = below limit
2. OL = over limit
3. IN = inconclusive, chemical confirm test is recommended
4. NA = not applicable

Shenzhen SEM.Test Technology Co., Ltd.

1/F, Building A, Hongwei Industrial Park, Liuxian 2nd Road, Bao'an District, Shenzhen, P.R.C. (518101)



TEST REPORT

Report No.: STR16066063R

Date: 2016-06-23

Page 3 of 4

5. mg/kg = milligram per kilogram = ppm
6. Method Detection Limit (MDL) : 10mg/kg for Pb, Cd, Hg and Cr⁶⁺; 10mg/kg for PBB and PBDE
7. ND = not detected
8. Negative = The Cr⁶⁺ concentration is below the limit of quantification. The coating is considered a non-Cr⁶⁺ based coating.
9. Positive = The Cr⁶⁺ concentration is above the limit of quantification and the statistical margin of error, The sample coating is considered to contain Cr⁶⁺.

Note:

1. When perform screening tests, 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 Cr⁶⁺.
2. Results are obtained by EDXRF for primary screening, and further chemical testing by ICP-OES (for Cd, Pb, Hg), UV-VIS (for Cr⁶⁺) and GC-MS (for PBBs, PBDEs) is recommended to be performed, if the concentration falls into the inconclusive area according to IEC 62321-3-1:2013 (unit: mg/kg)

Element	Polymer	Metal	Composite Materials
Cd	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$LOD < X < (150+3\sigma) \leq OL$
Pb	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Hg	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Br	$BL \leq (300-3\sigma) < X$	---	$BL \leq (250-3\sigma) < X$
Cr	$BL \leq (700-3\sigma) < X$	$BL \leq (700-3\sigma) < X$	$BL \leq (500-3\sigma) < X$

3. The XRF screening test for RoHS elements. The reading may be different to the actual content in the sample be of non-uniformity composition.
4. As per applicant's request, only test specified materials.

TEST REPORT

Report No.: STR16066063R

Date: 2016-06-23

Page 4 of 4

Tested sample photo:



--- End of Report ---