

Shenzhen LCS Compliance Testing Laboratory Ltd.

Add: Unit F-G, Floor 23, Kechuang Building, Quanzhi Innovation Science and Technology Park, Shajing Town, Bao'an District, Shenzhen, Guangdong, China

Tel: (86)755-23353209

Internet: Http://www.LCS-cert.com

Report No.: LCS171221069AR

TEST REPORT

Client company : XIANNING LONGSHENG PLASTIC HARDWARE PRODUCT FACTORY
 Client address : TEAM NO.7 ZHANGUAN VILLAGE XIANYANGHU TOWN XIANAN COUNTY XIANNING CITY HUBEI CHINA
 Manufacturer : XIANNING LONGSHENG PLASTIC HARDWARE PRODUCT FACTORY
 Address : TEAM NO.7 ZHANGUAN VILLAGE XIANYANGHU TOWN XIANAN COUNTY XIANNING CITY HUBEI CHINA

Report on the submitted samples said to be:

Sample Name : Metal Butt Plug
 Trade Mark : N/A
 Style/ Item No. : LS-JS-0101, LS-JS-0201, LS-JS-0301, LS-JS-0401, LS-JS-0501, LS-JS-0601, LS-JS-0701, LS-JS-0801, LS-JS-0901, LS-JS-1001, LS-JS-1101, LS-JS-1201, LS-JS-1301, LS-JS-1401, LS-JS-1501, LS-JS-1601, LS-JS-1701, LS-JS-1801, LS-JS-1901, LS-JS-2001, LS-JS-2101, LS-JS-2201, LS-JS-2301, LS-JS-2401, LS-JS-2501
 Sample Receiving Date : December 22, 2017
 Testing Period : December 22, 2017 ~ January 11, 2018
 Results : Please refer to next page(s).

Summary of Test Results:

TEST REQUEST

CONCLUSION

A EU RoHS Directive 2011/65/EU and its amendment directives


PASS

Signed for and on behalf of LCS

Written By: *Linda Ning*
 Linda Ning

Checked by: *Suez Su*
 Suez Su

Approved by: *Fung Xiao*
 Fung Xiao



Results:

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

Test method: With reference to IEC 62321-3-1:2013, Screening by X-ray Fluorescence Spectroscopy (XRF)

Seq. No.	Tested Part(s)	Results				
		Pb	Cd	Hg	Cr	Br
A	Metal Butt Plug					
1	Black cloth bag	BL	BL	BL	BL	BL
2	White foam	BL	BL	BL	BL	BL
3	White paper	BL	BL	BL	BL	BL
4	Silver metal shell	BL	BL	BL	X	BL
5	Red plastic film	BL	BL	BL	BL	BL
6	Transparent gel	BL	BL	BL	BL	BL

Note:

-- = Not Conducted

* = Screening by XRF and detected by chemical method. The test results of chemical method please refer to next pages.

i Results were obtained by XRF for primary screening, and further chemical testing by ICP (for Cd, Pb, Hg), UV-Vis (for Cr(VI)) and GC-MS (for PBBs, PBDEs) are recommended to be performed, if the concentration exceeds the below warning value according to IEC 62321-3-1:2013.

Element	Unit	Non-metal	Metal	Composite Material
Cd	mg/kg	BL≤70-3σ<X <130+3σ≤OL	BL≤70-3σ<X <130+3σ≤OL	BL≤50-3σ<X <150+3σ≤OL
Pb	mg/kg	BL≤700-3σ<X <1300+3σ≤OL	BL≤700-3σ<X <1300+3σ≤OL	BL≤500-3σ<X <1500+3σ≤OL
Hg	mg/kg	BL≤700-3σ<X <1300+3σ≤OL	BL≤700-3σ<X <1300+3σ≤OL	BL≤500-3σ<X <1500+3σ≤OL
Cr	mg/kg	BL≤700-3σ<X	BL≤700-3σ<X	BL≤500-3σ<X
Br	mg/kg	BL≤300-3σ<X	--	BL≤250-3σ<X

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Note:

- BL = Below Limit
- OL = Over Limit
- X = Inconclusive

- ii The XRF screening test for RoHS elements – The reading may be different to the actual content in the sample be of non-uniformity composition.
- iii The maximum permissible limit is quoted from the document 2005/618/EC amending RoHS directive 2011/65/EU:

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

Disclaimers:

This XRF Screening 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 screening 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 pre-treatment with relevant chemical equipment analysis are required to obtain quantitative data.

B. The Test Results of Chemical Method:

Test method:

Hexavalent Chromium Content:

With reference to IEC 62321:2008 and IEC 62321-7-1:2013, by alkaline digestion and analysis was performed by UV-visible spectrophotometer (UV-Vis)

1) The test results of Hexavalent Chromium (Cr⁶⁺)(metal)

Item	Unit	MDL	Results	Limit
			(4)	
Hexavalent Chromium (Cr ⁶⁺)	mg/kg	**	Negative	1000 mg/kg
Conclusion	/	/	Pass	/

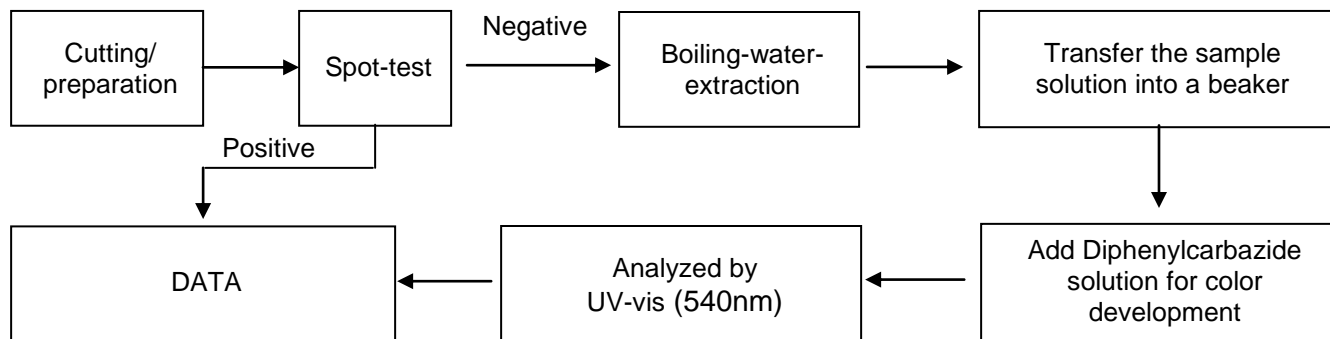
Note:

- Negative = Absence of Cr(VI) on the tested areas
- MDL = Method Detection Limit
- mg/kg = ppm
- ** = Spot-test:
 Negative = Absence of Cr(VI) coating/ surface layer, Positive = Presence of Cr(VI) coating/ surface layer;
 (The tested sample should be further verified by boiling-water-extraction method if the spot test result cannot be confirmed)
 Boiling-water-extraction:
 Negative = Absence of Cr(VI) coating/ surface layer, Positive = Presence of Cr(VI) coating/ surface layer;
 (The detected concentration in boiling- water-extraction solution is equal or greater than 0.02 mg/kg with 50cm² sample surface areas.)
- # =
 Positive indicates the presence of Cr(VI) on the tested areas and result be regarded as conflict with RoHS requirement.
 Negative indicates the absence of Cr(VI) on the tested areas and result be regarded as no conflict with RoHS requirement.
- #1 According to RoHS directive 2011/65/EU and its amendments, Lead is exempted in glass of cathode ray tubes, electronic components and fluorescent tubes.
- #2 According to RoHS directive 2011/65/EU and its amendments, Lead is exempted in electronic ceramic parts (e.g. piezoelectronic devices).
- #3 According to RoHS directive 2011/65/EU and its amendments, Lead is exempted as an alloying element in Copper containing up to 4% (40000ppm) by weight.
- #4 According to RoHS directive 2011/65/EU and its amendments, Lead is exempted in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead).

Appendix I

Test Flow chart

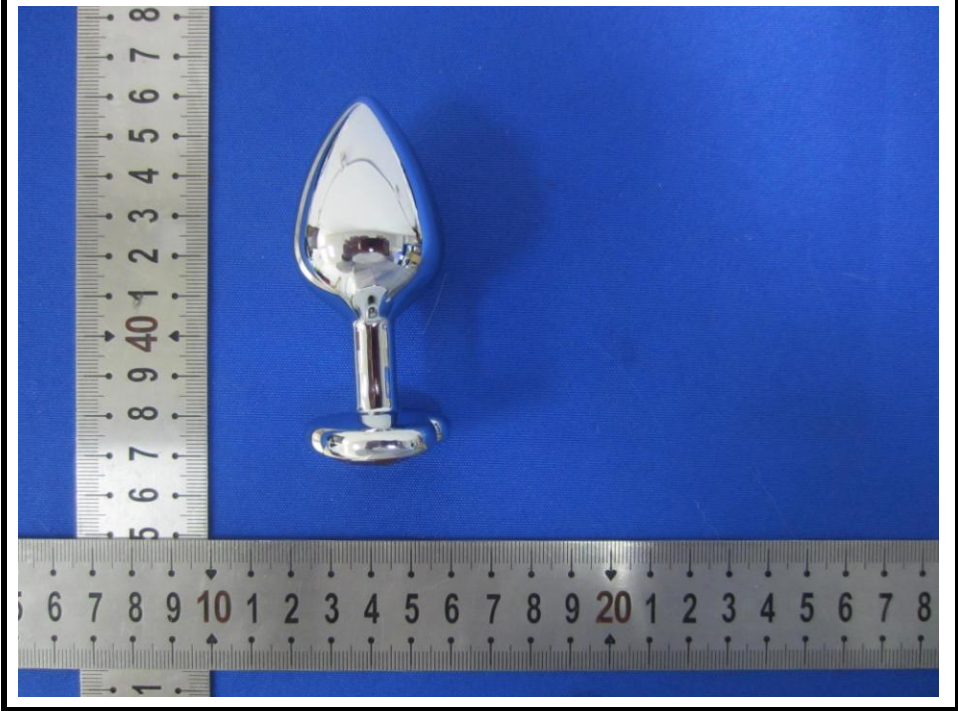
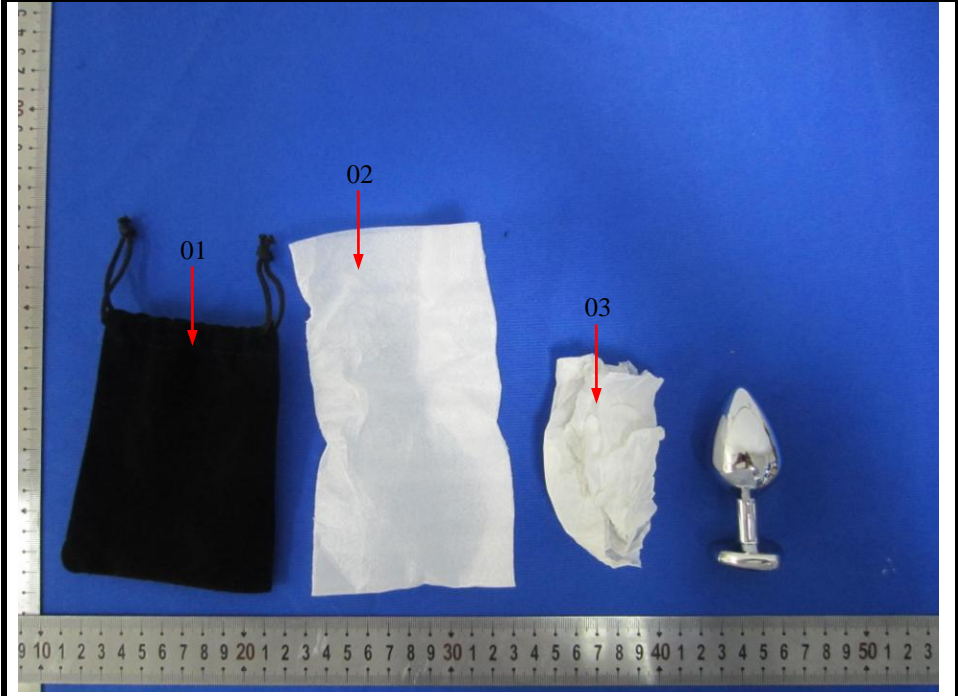
1. Test Flowchart for Cr⁶⁺ content (For metal material)



Appendix II

Photograph of Sample





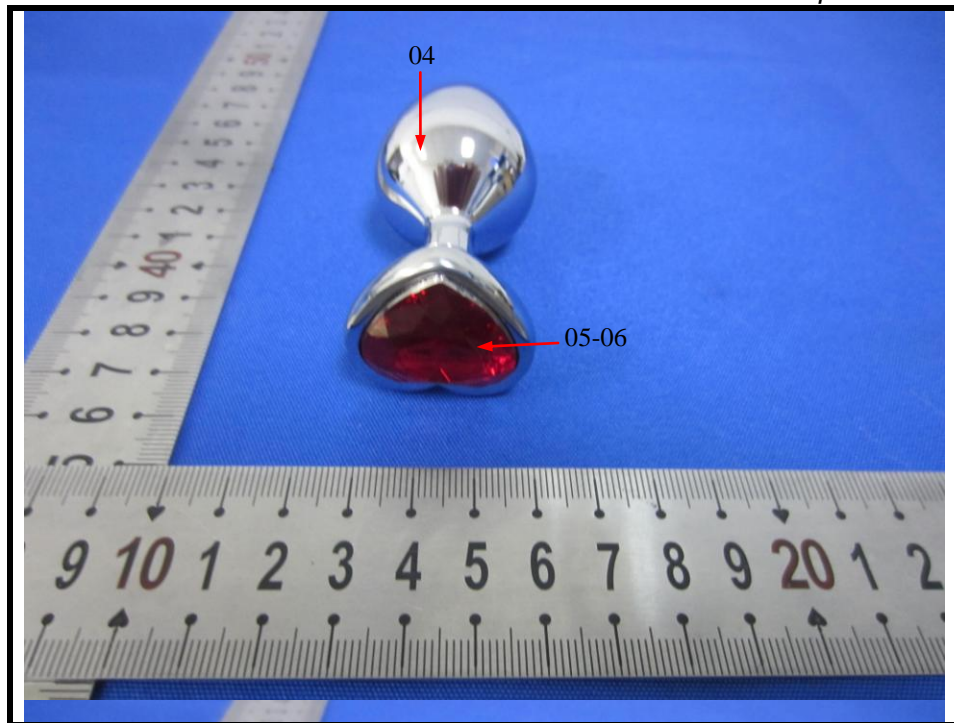
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LCS authenticate the photo on original report only

***** End of Report *****

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