



TEST REPORT

Report Number:
報告號碼: (6219)023-0125

January 28, 2019

Date Received: January 23, 2019
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Hong Li Enterprise Co., Ltd
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Sample Description:
樣品描述: Ultra LED COB Slim Light

Test Period: January 23, 2019 to January 28, 2019
測試日期: 2019 年 01 月 23 日至 2019 年 01 月 28 日

Item No(s): HL-1115
HL-1105, HL-1108, HL-1118
HL-1120, HL-1201, HL-1202
HL-1203, HL-1204, HL-1220
HL-1310, HL-9005, HL-9008
HL-9015, HL-9018, HL-9030
HL-9078, HL-9115, HL-9156
HL-9157, HL-9158

Series Item No(s):
系列型號:

SUMMARY OF TEST RESULTS 測試結果摘要

TEST REQUESTED 測試要求	CONCLUSION 結論	REMARK 備註
European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) 有關歐盟委員會針對電子產品的指令(電子電氣禁用某些有害物質指令), 2011/65/EU	DATA 數據	Test result in page 4 測試結果請見第 4 頁
Phthalates Test – Directive (EU)2015/863 Amendment of European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) (Note: The amendment will be effective on 22 July 2019. For medical devices, monitoring and control instruments, effective date will be 22 July 2021.) 鄰苯二甲酸鹽測試- 指令 2011/65/EU 歐洲議會和理事會關於電子電氣設備中限制使用某些有害物質 (RoHS)的修正案指令(EU)2015/863. (注釋:修正案將於 2019 年 7 月 22 日起生效。對於醫療設備及監測和控制設備生效日期為 2021 年 7 月 22 日)。	DATA 數據	Test result in page 6 測試結果請見第 6 頁

REMARK

If there are questions or concerns on this report, please contact:
若有任何疑問或諮詢, 請以 email 與我們聯絡

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BUREAU VERITAS CONSUMER PRODUCTS
SERVICES (H.K.) LIMITED, TAIWAN BRANCH

PREPARED BY : Tiffany Chin


VICO LIN
MANAGER
ANALYTICAL DEPARTMENT

C/N /TC/ML

Photo of the Submitted Sample

所提交樣品的照片



Sample



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TEST RESULT 測試結果

Compliance Test - European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS)

合規測試 - 有關歐盟委員會針對電子產品的指令(電子電氣禁用某些有害物質指令)，2011/65/EU

Test Method : See Appendix.

測試方法 見附錄

Test Item(s) 測試項目	Item / Component Description(s) 項目 / 部件描述
1.	Black ; Metals 黑色 ; 金屬
2.	Silvery ; Metals 銀色 ; 金屬
3.	Black ; Plastics 黑色 ; 塑膠
4.	Transparent ; Plastics 透明 ; 塑膠
5.	Silvery ; Metals 銀色 ; 金屬
6.	Green ; Electronics 綠色 ; 電子零件
7.	Red ; Plastics 紅色 ; 塑膠
8.	Green ; Electronics 綠色 ; 電子零件
9.	Silvery ; Metals 銀色 ; 金屬
10.	Black ; Plastics 黑色 ; 塑膠



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TEST RESULT 測試結果**Compliance Test – European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS)****合規測試 – 有關歐盟委員會針對電子產品的指令(電子電氣禁用某些有害物質指令)，2011/65/EU****See Analytes and their corresponding Maximum Allowable Limit in Appendix****分析物及其對應的最大允許限 – 見附錄**

-	Result						Conclusion 結論
Parameter 參數	Lead (Pb) 鉛	Cadmium (Cd) 鎘	Mercury (Hg) 汞	Chromium VI (Cr VI) 六價鉻	PBBs 多溴聯苯	PBDEs 多溴 二苯醚	
Unit 單位	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	-
Test Item(s) 測試項目	-	-	-	-	-	-	-
1.	ND	ND	ND	ND	NA	NA	PASS 通過
2.	ND	ND	ND	ND	NA	NA	PASS 通過
3.	ND	ND	ND	ND	ND	ND	PASS 通過
4.	ND	ND	ND	ND	ND	ND	PASS 通過
5.	ND	ND	ND	ND	NA	NA	PASS 通過
6.	ND	ND	ND	ND	ND*	ND*	PASS 通過
7.	ND	ND	ND	ND	ND	ND	PASS 通過
8.	ND	ND	ND	ND	ND	ND	PASS 通過
9.	ND	ND	ND	ND	NA	NA	PASS 通過
10.	ND	ND	ND	ND	ND	ND	PASS 通過

Note / Key 注釋:

ND = Not detected 低於偵測極限 NA = Not applicable 不適用

Negative = 陰性

Positive = 陽性

mg/kg = milligram(s) per kilogram 毫克每千克= ppm = part(s) per million

Detection Limit : See Appendix.

檢出限 – 見附錄



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Remark 備註:

- The testing approach is listed in table of Appendix.
測試方法 – 見附錄。
- * denotes as reported result(s) was (were) performed by wet chemistry method. Others were screened by XRF. For XRF screening, the result(s) of Cr VI was (were) reported as total chromium and the result(s) of PBBs and PBDEs was (were) reported as total bromine. Also, the XRF result(s) may be different to the actual content based on various factors including, but not limit to, sample size, thickness, area, non-uniformity composition, surface flatness.
標有 * 的結果為濕化學測試結果，其它為 XRF 掃描結果。對於 XPF 掃描，六價鉻結果以總鉻量表示，而多溴聯苯 (PBBs) 和多溴二苯醚 (PBDEs) 結果以總溴量表示。此外，基於，但不限於，樣品量、厚度、面積、成分的不均勻性、表面平整性等原因，該評估的 XPF 結果可能與實際濃度有所偏差。
- According to European Parliament and Council Directive 2011/65/EU, Article 5 “Adaptation of the Annexes to scientific and technical progress”, exemption(s) should be granted to the materials and components of Test Item(s) in the lists in Annexes III and IV of this directive.
根據歐盟委員會 2011/65/EU 指令中，條款 5 “適應科學技術進步的附件”，附件 III 和 IV 中列明的測試項目中的材料和部件可予以豁免。
- The testing items are based on the applicant's requirements.
樣品測試部位為依照申請人的要求。



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TEST RESULT 測試結果

Phthalates Test – Directive (EU)2015/863 Amendment of European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS)

鄰苯二甲酸鹽測試- 指令2011/65/EU 歐洲議會和理事會關於電子電氣設備中限制使用某些有害物質 (RoHS)的修正案指令(EU)2015/863.

Test Method : With reference to International Standard IEC 62321-8: 2017.
測試方法 : 參照國際標準 IEC 62321-8: 2017.

Maximum Allowable Limit: 最大允許限值:	DEHP, BBP, DBP & DIBP: 0.1% (Each) 鄰苯二甲酸二異辛酯, 鄰苯二甲酸丁苄酯, 鄰苯二甲酸二丁酯, 和鄰苯二甲酸二異丁酯:0.1%(每種)			
Tested Item(s) 測試項目	Result 結果			Conclusion 結論
	Detected Analyte(s) 檢測到的分析物	Conc. 濃度	Unit 單位	
1.	NA	NA	%	/
2.	NA	NA	%	/
3.	ND	ND	%	PASS 通過
4.	ND	ND	%	PASS 通過
5.	NA	NA	%	/
6.	ND	ND	%	PASS 通過
7.	DEHP	0.0101	%	PASS 通過
8.	ND	ND	%	PASS 通過
9.	NA	NA	%	/
10.	ND	ND	%	PASS 通過

Note / Key 注釋:

ND = Not detected 低於偵測極限 NA = Not applicable 不適用
mg/kg = milligram(s) per kilogram 毫克每千克= ppm = part(s) per million
% = percent 百分率 10 000 mg/kg = 1 %

Detection Limit 檢出限(%) : 0.005

Remark: The list of phthalates is summarized in table of Appendix.

備註：鄰苯二甲酸鹽名單在附錄表格中

Comment 評論:

Photograph(s) [Compliance Test for European Parliament and Council Directive 2011/65/EU] :

照片 [合規測試 – 歐盟委員會指令 2011/65/EU]:



END 結束

APPENDIX 附錄

List of Analytes and their Corresponding Test Methods, Detection Limit and Maximum Allowable Limit [Compliance Test for European Parliament and Council Directive 2011/65/EU] : 分析物名單、其相應的測試方法、檢出限及最大允許限 [合規測試 – 歐盟委員會指令 2011/65/EU]:						
No.	Name of Analytes 分析物名稱	Detection Limit 檢出限 (mg/kg)				Maximum Allowable Limit 最大允許限 (mg/kg)
		X-ray fluorescence (XRF) ^[a] X 射線螢光			Wet Chemistry 濕化學	
		Plastic 塑膠	Metallic 金屬/ glass 玻璃 / ceramic 陶瓷	Others 其他材料		
1	Lead (Pb) 鉛	100	200	200	10 ^[b]	1 000
2	Cadmium (Cd) 鎘	50	50	50	10 ^[b]	100
3	Mercury (Hg) 汞	100	200	200	10 ^[c]	1 000
4	Chromium (Cr) 鉻	100	200	200	NA	NA
5	Chromium VI (Cr VI) 六價鉻	NA	NA	NA	3 ^[g, h] / 10 ^[d] / See 見 ^[e, j]	1 000 / Negative 陰性 ^[i]
6	Bromine (Br) 溴	200	NA	200	NA	NA
7	Polybromobiphenyls (PBBs) 多溴聯苯 - Bromobiphenyl (MonoBB) - Dibromobiphenyl (DiBB) - Tribromobiphenyl (TriBB) - Tetrabromobiphenyl (TetraBB) - Pentabromobiphenyl (PentaBB) - Hexabromobiphenyl (HexaBB) - Heptabromobiphenyl (HeptaBB) - Octabromobiphenyl (OctaBB) - Nonabromobiphenyl (NonaBB) - Decabromobiphenyl (DecaBB)	NA	NA	NA	Each 各 50 ^[f]	Sum 總 1 000
8	Polybromodiphenyl ethers (PBDEs) 多溴二苯醚 - Bromodiphenyl ether (MonoBDE) - Dibromodiphenyl ether (DiBDE) - Tribromodiphenyl ether (TriBDE) - Tetrabromodiphenyl ether (TetraBDE) - Pentabromodiphenyl ether (PentaBDE) - Hexabromodiphenyl ether (HexaBDE) - Heptabromodiphenyl ether (HeptaBDE) - Octabromodiphenyl ether (OctaBDE) - Nonabromodiphenyl ether (NonaBDE) - Decabromodiphenyl ether (DecaBDE)	NA	NA	NA	Each 各 50 ^[f]	Sum 總 1 000
NA = Not applicable 不適用						
[a]	Test method with reference to International Standard IEC 62321-3-1: 2013. 測試方法參照國際標準 IEC 62321-3-1: 2013.					
[b]	Test method with reference to International Standard IEC 62321-5: 2013. 測試方法參照國際標準 IEC 62321-5: 2013.					
[c]	Test method with reference to International Standard IEC 62321-4: 2017. 測試方法參照國際標準 IEC 62321-4: 2017.					

- [d] Polymers and Electronics - Test method with reference to European Standard EN 62321-7-2: 2017.
聚合物及電子 - 測試方法參照歐洲標準 EN 62321-7-2: 2017
- [e] Metal - Test method with reference to International Standard IEC 62321-7-1: 2015^[1].
金屬 - 測試方法參照國際標準 IEC 62321-7-1: 2015^[1].
- [f] Test method with reference to International Standard IEC 62321-6: 2015.
測試方法參照國際標準 IEC 62321-6: 2015.
- [g] Leather - Test method International Standard ISO 17075: 2007.
皮革 - 測試方法國際標準 ISO 17075 : 2007.
- [h] Other Than Metal, Leather, Polymers and Electronics - Test method with reference to International Standard ISO 17075: 2007.
非金屬, 皮革, 聚合物及電子 - 測試方法參照國際標準 ISO 17075 : 2007.
- [i] The principle of this method was evaluated and supported by two studies organized by IEC TC 111 WG3. These studies were focused on detecting the presence of Cr VI in the corrosion protection coatings on metallic samples. 該方法的原理是在由 IEC TC111 WG3 組織的兩次研究中得到了充分評估並獲得了認可。這些研究側重於對金屬樣品上防腐塗層中六價鉻的存在的檢測(定性測試)。
Result(s) of Cr VI for metallic material(s) was (were) expressed in term of positive and negative.
Cr(VI): 0.1 µg/cm²
#The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than 0.13µg/cm². The coating is considered to contain Cr(VI).
#The sample is negative for Cr(VI) if the Cr(VI) concentration is less than 0.10µg/cm². The coating is considered a non-Cr(VI) based coating.
- [j] #The result between 0.10µg/cm² and 0.13µg/cm² is considered to be inconclusive – unavoidable coating variations may influence the determination.
金屬材料的六價鉻結果以陰性和陽性表示。
當六價鉻結果大於 0.13µg/cm²，表示樣品表層含有六價鉻。
當六價鉻結果小於 0.10µg/cm²，表示樣品表層不含六價鉻。
當六價鉻結果介於 0.10µg/cm² 和 0.13µg/cm² 之間，表示樣品表層不確定含有六價鉻 – 不可避免塗料的變化性可能影響結果判定。

Testing Approach [Compliance Test for European Parliament and Council Directive 2011/65/EU] :

測試方法[合規測試 – 歐盟委員會指令 2011/65/EU]:

The testing approach was with reference to the following document(s).

測試方法參考下列檔。

- 1 International Standards IEC 62321-1: 2013 and IEC 62321-2: 2013
國際標準 IEC 62321-1: 2013 and IEC 62321-2: 2013
- 2 “RoHS Enforcement Guidance Document Version 1” by EU RoHS Enforcement Authorities Informal Network. (May 2006)
“RoHS 強制指導檔版本 1” EU RoHS 強制委員會非正式網路 (2006, 5 月)
- 3 “RoHS Regulations - Government Guidance Notes” by United Kingdom Department for Business Innovation & Skills. (February 2011)
“RoHS 章程 - 政府指導注釋” 英國貿易和工業局 (2007, 2 月)
- 4 “Final Report to RoHS substances (Hg, Pb, Cr(VI), Cd, PBB and PBDE) in electrical and electronic equipment in Belgium” by Belgium Federal Public Service Health, Food Chain Safety and Environment. (November 2005)
“比利時關於電子電氣類產品 RoHS 受限物質 (汞, 鉛, 六價鉻, 鎘, 多溴聯苯和多溴二苯醚)” 比利時公共服務, 健康, 食品鏈和環境安全聯盟 (2005, 11 月)



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List of Phthalates:

鄰苯二甲酸鹽名單：

No. 編號	Name of Analytes 分析物名稱	CAS-No.	No. 編號	Name of Analytes 分析物名稱	CAS-No.
1	Bis(2-ethylhexyl) phthalate (DEHP) 鄰苯二甲酸二異辛酯	117-81-7	3	Dibutyl phthalate (DBP) 鄰苯二甲酸二丁酯	84-74-2
2	Butyl benzyl phthalate (BBP) 鄰苯二甲酸丁苄酯	85-68-7	4	Diisobutyl phthalate (DIBP) 鄰苯二甲酸二異丁酯	84-69-5