

測試報告

Test Report

號碼(No.) : CE/2020/22090

日期(Date) : 2020/02/17

頁數(Page): 1 of 9

凱士士企業股份有限公司
KAI SUH SUH ENTERPRISE CO., LTD.
台北市延平北路一段38號
38, YEN PING N. RD., SEC. 1, TAIPEI, TAIWAN, R. O. C.

以下測試樣品係由申請廠商所提供及確認 (The following sample(s) was/were submitted and identified by/on behalf of the applicant as):

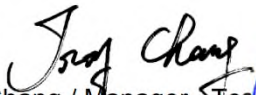
樣品名稱(Sample Description) : SPIRAL WRAPPING BAND / 捲式結束帶
同材質/產品名稱/型號(Used For Products (Style /Item No.)) : 請參考第5頁 (PLEASE REFER TO PAGE 5)
樣品材質(Sample Material) : PE(BLACK)
收件日期(Sample Receiving Date) : 2020/02/07
測試期間(Testing Period) : 2020/02/07 to 2020/02/14

測試需求(Test Requested):

- (1) 依據客戶指定，參考RoHS 2011/65/EU Annex II及其修訂指令(EU) 2015/863測試鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚、DBP, BBP, DEHP, DIBP. (As specified by client, with reference to RoHS 2011/65/EU Annex II and amending Directive (EU) 2015/863 to determine Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP contents in the submitted sample(s).)
- (2) 其他測試項目請見下一頁。(Please refer to next pages for the other item(s).)

測試結果(Test Results) : 請參閱下一頁 (Please refer to following pages).

結論(Conclusion) : (1) 根據客戶所提供的樣品，其鎘、鉛、汞、六價鉻、多溴聯苯、多溴聯苯醚、DBP, BBP, DEHP, DIBP的測試結果符合RoHS 2011/65/EU Annex II暨其修訂指令(EU) 2015/863之限值要求。(Based on the performed tests on submitted sample(s), the test results of Cadmium, Lead, Mercury, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP comply with the limits as set by RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.)


Troy Chang / Manager - Tech
Signed for and behalf of
SGS TAIWAN LTD.
Chemical Laboratory - Taipei



測試報告

Test Report

號碼(No.) : CE/2020/22090

日期(Date) : 2020/02/17

頁數(Page): 2 of 9

凱士士企業股份有限公司
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測試結果(Test Results)

測試部位(PART NAME)No. 1 : 黑色軟塑膠 (BLACK SOFT PLASTIC)

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	MDL	結果 (Result)	限值 (Limit)
				No. 1	
鎘 / Cadmium (Cd)	mg/kg	參考IEC 62321-5 (2013), 以感應耦合電漿發射光譜儀檢測. / With reference to IEC 62321-5 (2013) and performed by ICP-OES.	2	n. d.	100
鉛 / Lead (Pb)	mg/kg	參考IEC 62321-5 (2013), 以感應耦合電漿發射光譜儀檢測. / With reference to IEC 62321-5 (2013) and performed by ICP-OES.	2	n. d.	1000
汞 / Mercury (Hg)	mg/kg	參考IEC 62321-4:2013+ AMD1:2017, 以感應耦合電漿發射光譜儀檢測. / With reference to IEC 62321-4:2013+ AMD1:2017 and performed by ICP-OES.	2	n. d.	1000
六價鉻 / Hexavalent Chromium Cr(VI)	mg/kg	參考IEC 62321-7-2 (2017), 以UV-VIS 檢測. / With reference to IEC 62321-7-2 (2017) and performed by UV-VIS.	8	n. d.	1000

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測試報告

Test Report

號碼(No.) : CE/2020/22090

日期(Date) : 2020/02/17

頁數(Page): 3 of 9

凱士士企業股份有限公司
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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	MDL	結果 (Result)	限值 (Limit)
				No. 1	
多溴聯苯總和 / Sum of PBBs	mg/kg	參考IEC 62321-6 (2015), 以氣相層析 / 質譜儀檢測. / With reference to IEC 62321-6 (2015) and performed by GC/MS.	-	n. d.	1000
一溴聯苯 / Monobromobiphenyl	mg/kg		5	n. d.	-
二溴聯苯 / Dibromobiphenyl	mg/kg		5	n. d.	-
三溴聯苯 / Tribromobiphenyl	mg/kg		5	n. d.	-
四溴聯苯 / Tetrabromobiphenyl	mg/kg		5	n. d.	-
五溴聯苯 / Pentabromobiphenyl	mg/kg		5	n. d.	-
六溴聯苯 / Hexabromobiphenyl	mg/kg		5	n. d.	-
七溴聯苯 / Heptabromobiphenyl	mg/kg		5	n. d.	-
八溴聯苯 / Octabromobiphenyl	mg/kg		5	n. d.	-
九溴聯苯 / Nonabromobiphenyl	mg/kg		5	n. d.	-
十溴聯苯 / Decabromobiphenyl	mg/kg		5	n. d.	-
多溴聯苯醚總和 / Sum of PBDEs	mg/kg		-	n. d.	1000
一溴聯苯醚 / Monobromodiphenyl ether	mg/kg		5	n. d.	-
二溴聯苯醚 / Dibromodiphenyl ether	mg/kg		5	n. d.	-
三溴聯苯醚 / Tribromodiphenyl ether	mg/kg		5	n. d.	-
四溴聯苯醚 / Tetrabromodiphenyl ether	mg/kg		5	n. d.	-
五溴聯苯醚 / Pentabromodiphenyl ether	mg/kg		5	n. d.	-
六溴聯苯醚 / Hexabromodiphenyl ether	mg/kg		5	n. d.	-
七溴聯苯醚 / Heptabromodiphenyl ether	mg/kg		5	n. d.	-
八溴聯苯醚 / Octabromodiphenyl ether	mg/kg		5	n. d.	-
九溴聯苯醚 / Nonabromodiphenyl ether	mg/kg	5	n. d.	-	
十溴聯苯醚 / Decabromodiphenyl ether	mg/kg	5	n. d.	-	

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測試報告

Test Report

號碼(No.) : CE/2020/22090

日期(Date) : 2020/02/17

頁數(Page): 4 of 9

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	MDL	結果 (Result)	限值 (Limit)
				No. 1	
鄰苯二甲酸丁苯甲酯 / BBP (Butyl Benzyl phthalate) (CAS No. : 85-68-7)	mg/kg	參考IEC 62321-8 (2017), 以氣相層析 / 質譜儀檢測. / With reference to IEC 62321-8 (2017). Analysis was performed by GC/MS.	50	n. d.	1000
鄰苯二甲酸二丁酯 / DBP (Dibutyl phthalate) (CAS No. : 84-74-2)	mg/kg		50	n. d.	1000
鄰苯二甲酸二(2-乙基己基)酯 / DEHP (Di- (2-ethylhexyl) phthalate) (CAS No. : 117-81-7)	mg/kg		50	n. d.	1000
鄰苯二甲酸二異丁酯 / DIBP (Di-isobutyl phthalate) (CAS No. : 84-69-5)	mg/kg		50	n. d.	1000
鄰苯二甲酸二異癸酯 / DIDP (Di-isodecyl phthalate) (CAS No. : 26761-40-0; 68515-49-1)	mg/kg		50	n. d.	-
鄰苯二甲酸二異壬酯 / DINP (Di-isononyl phthalate) (CAS No. : 28553-12-0; 68515-48-0)	mg/kg		50	n. d.	-
鄰苯二甲酸二正辛酯 / DNOP (Di-n-octyl phthalate) (CAS No. : 117-84-0)	mg/kg		50	n. d.	-
鄰苯二甲酸二正己酯 / DNHP (Di-n-hexyl phthalate) (CAS No. : 84-75-3)	mg/kg		50	n. d.	-

備註(Note) :

1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. MDL = Method Detection Limit (方法偵測極限值)
3. n. d. = Not Detected (未檢出)
4. "-" = Not Regulated (無規格值)

測試報告

Test Report

號碼(No.) : CE/2020/22090

日期(Date) : 2020/02/17

頁數(Page): 5 of 9

凱士士企業股份有限公司
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同材質/產品名稱/型號(Used For
Products (Style /Item No.)) :

同材質 / 產品名稱/型號 (Used For Products (Style /Item No.)):

- PE / 被覆銅管紮線帶 COATED COPPER TUBE CABLE TIE /AT
- PE / 雙扣式珠孔紮線帶 DOUBLE HEAD KNOT TIE /KTV
- PE / 自由絕緣保護套/U型 EDGING GROMMENT /ED, EDH
- PE / 六角螺帽保護套 HEXAGONAL PROTECTION CAP /HPM
- PE / 插座護蓋 HOUSING COVER /HR, RHR, USB
- PE / 標示紮線帶 MARKER TIE /PMT
- PE / 自由絕緣保護套 MOVABLE BUSHING /KE, KG, KGC, KGH
- PE / 針型壁虎 PIN PLUG /PP
- PE / 電源線插頭護蓋 PLUG COVER /PR
- PE / 圓體隔離柱 ROUND SPACER /RSP
- PE / 螺絲保護套 SCREW PROTECTION CAP /SCP
- PE / 捲式結束帶 SPIRAL WRAPPING BAND /KS, KSP
- PE / 電源線結束帶 WIRE COLLECT TIE /TL, PCT, WL, WLT
- PE / 標示盒 MARKER BOX /MC
- PE / 結束固定鈕 BUTTONS FOR BAND /A-B
- PE / 展覽會用配件 WIRING DUCT & CABLE CLIP / EX
- PE / 腳墊 HEADBOARD WASHER / HBW
- PE / USB插頭護蓋 USB HOUSING COVER / USB

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測試報告

Test Report

號碼(No.) : CE/2020/22090

日期(Date) : 2020/02/17

頁數(Page): 6 of 9

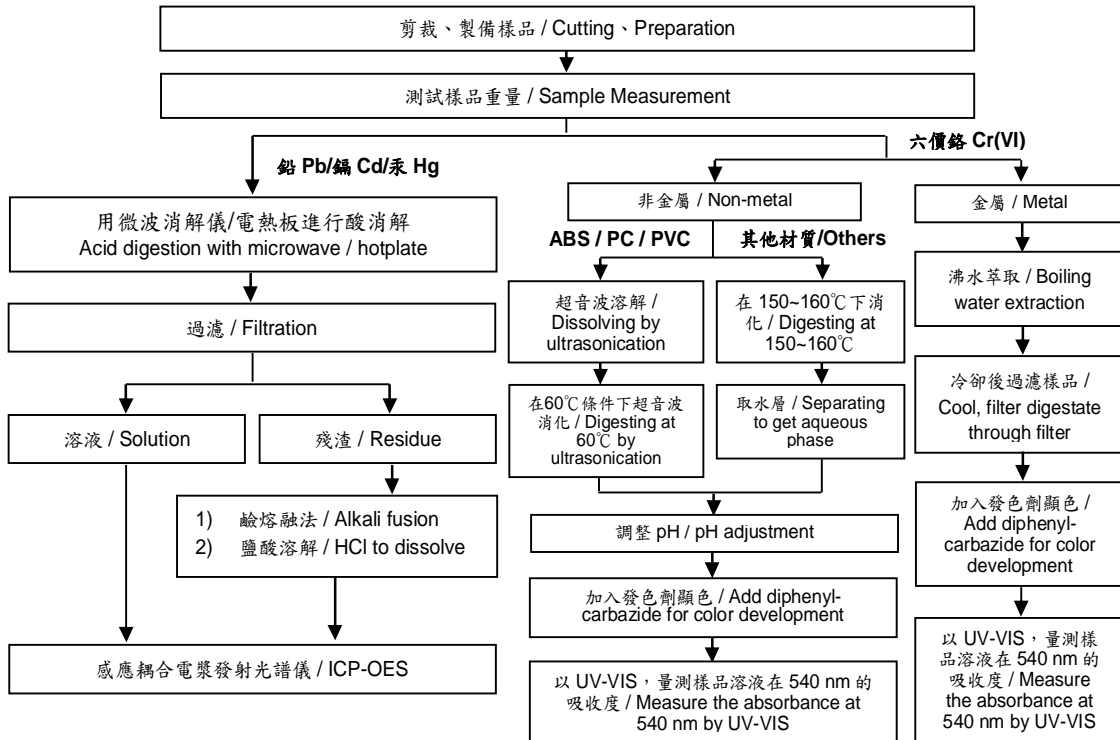
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重金屬流程圖 / Analytical flow chart of Heavy Metal

根據以下的流程圖之條件，樣品已完全溶解。(六價鉻測試方法除外)

These samples were dissolved totally by pre-conditioning method according to below flow chart. (Cr⁶⁺ test method excluded)

- 測試人員：陳思臻 / Technician: Rita Chen
- 測試負責人：張啟興 / Supervisor: Troy Chang



測試報告

Test Report

號碼(No.) : CE/2020/22090

日期(Date) : 2020/02/17

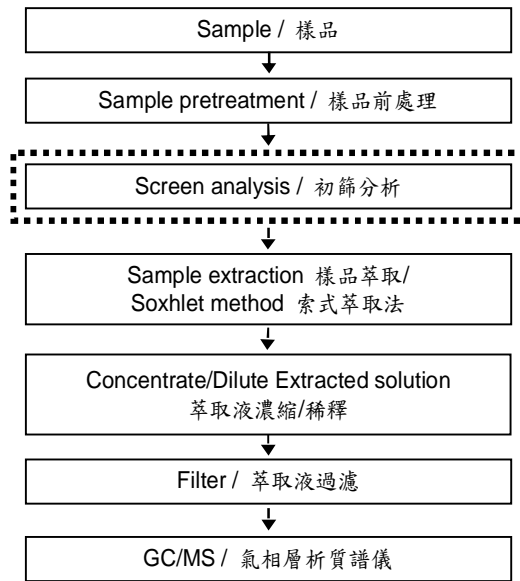
頁數(Page): 7 of 9

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多溴聯苯/多溴聯苯醚分析流程圖 / Analytical flow chart - PBB/PBDE

- 測試人員：涂雅苓 / Technician: Yaling Tu
- 測試負責人：張啟興 / Supervisor: Troy Chang

初次測試程序 / First testing process —————>
 選擇性篩檢程序 / Optional screen process>
 確認程序 / Confirmation process - - ->



測試報告

Test Report

號碼(No.) : CE/2020/22090

日期(Date) : 2020/02/17

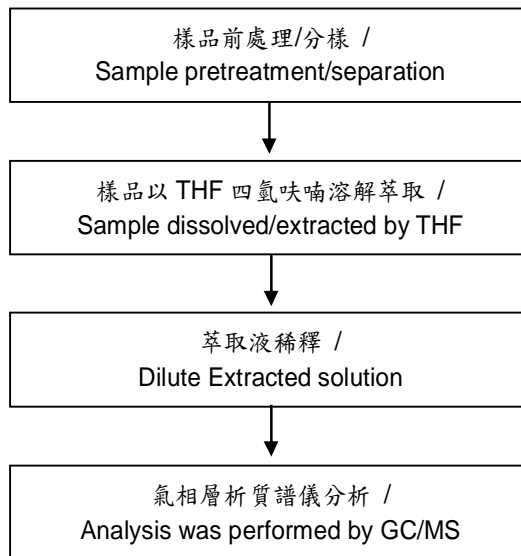
頁數(Page): 8 of 9

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可塑劑分析流程圖 / Analytical flow chart - Phthalate

- 測試人員：涂雅苓 / Technician: Yaling Tu
- 測試負責人：張啟興 / Supervisor : Troy Chang

【測試方法/Test method: IEC 62321-8】



測試報告

Test Report

號碼(No.) : CE/2020/22090

日期(Date) : 2020/02/17

頁數(Page): 9 of 9

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* 照片中如有箭頭標示，則表示為實際檢測之樣品/部位。*

(The tested sample / part is marked by an arrow if it's shown on the photo.)

CE/2020/22090



** 報告結尾 (End of Report) **