

Test Report

日期(Date): 2017/01/10

中華紙漿股份有限公司

CHUNG HWA PULP CORPORATION

台北市中正區重慶南路二段51號12樓

12F, NO. 51, SEC. 2, CHONGCING S. RD., ZHONGZHENG DISTRICT, TAIPEI CITY 100, TAIWAN, R. O. C.

號碼(No.): CE/2017/10168

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):

中華紙漿股份有限公司 (CHUNG HWA PULP CORPORATION) 送樣廠商(Sample Submitted By)

樣品名稱(Sample Description) KRAFT PAPER LINER (離型底紙類)

應用於(Used For) 黃彩離型用紙, 桔黄彩離型用紙, 白彩離型用紙 (YELLOW KRAFT PAPER, HONEY

KRAFT PAPER, WHITE KRAFT PAPER)

收件日期(Sample Receiving Date) 2017/01/03

測試期間(Testing Period) 2017/01/03 TO 2017/01/10

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測試編、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, DBP, DEHP, DIBP contents in the submitted sample.)

(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) : 請見下一頁 (Please refer to next pages).

Signed for and on SGS TAIWAN LTD. Chemical Laboratory - Taipei

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測試結果(Test Results)

測試部位(PART NAME)No.1 : 黄色紙張 (YELLOW PAPER)

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result) No.1
鎬 / Cadmium (Cd)	mg/kg	参考IEC 62321-5 (2013),以感應耦合 電漿原子發射光譜儀檢測. / With reference to IEC 62321-5 (2013) and performed by ICP-AES.	2	n. d.
鉛 / Lead (Pb)	mg/kg	参考IEC 62321-5 (2013),以感應耦合 電漿原子發射光譜儀檢測. / With reference to IEC 62321-5 (2013) and performed by ICP-AES.	2	n. d.
汞 / Mercury (Hg)	mg/kg	参考IEC 62321-4 (2013),以感應耦合 電漿原子發射光譜儀檢測. / With reference to IEC 62321-4 (2013) and performed by ICP-AES.	2	n. d.
六價鉻 / Hexavalent Chromium Cr(VI)	mg/kg	参考IEC 62321 (2008),以UV-VIS檢 測. / With reference to IEC 62321 (2008) and performed by UV-VIS.	2	n. d.
六溴環十二烷及所有主要被辨別出的異構物 / Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α – HBCDD, β – HBCDD, γ – HBCDD) (CAS No.: 25637–99–4 and 3194–55–6 (134237–51–7, 134237–50–6, 134237–52–8))	mg/kg	参考IEC 62321 (2008),以氣相層析/ 質譜儀檢測. / With reference to IEC 62321 (2008). Analysis was performed by GC/MS.	5	n. d.

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result) No.1
多溴聯苯總和 / Sum of PBBs	mg/kg		-	n. d.
一溴聯苯 / Monobromobiphenyl	mg/kg	1	5	n. d.
二溴聯苯 / Dibromobiphenyl	mg/kg	1	5	n. d.
三溴聯苯 / Tribromobiphenyl	mg/kg	1	5	n. d.
四溴聯苯 / Tetrabromobiphenyl	mg/kg	1	5	n. d.
五溴聯苯 / Pentabromobiphenyl	mg/kg	1	5	n. d.
六溴聯苯 / Hexabromobiphenyl	mg/kg	1	5	n. d.
七溴聯苯 / Heptabromobiphenyl	mg/kg		5	n. d.
八溴聯苯 / Octabromobiphenyl	mg/kg	参考IEC 62321-6 (2015),以氣相層析	5	n. d.
九溴聯苯 / Nonabromobiphenyl	mg/kg		5	n. d.
十溴聯苯 / Decabromobiphenyl	mg/kg	/質譜儀檢測. / With reference to	5	n. d.
多溴聯苯醚總和 / Sum of PBDEs	mg/kg	IEC 62321-6 (2015) and performed	-	n. d.
一溴聯苯醚 / Monobromodiphenyl ether	mg/kg	by GC/MS.	5	n. d.
二溴聯苯醚 / Dibromodiphenyl ether	mg/kg	1	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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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	方法偵測 極限值 (MDL)	結果 (Result) 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/CD (2013),以氣相層析儀/質譜儀檢測. / With reference to IEC 62321-8/CD (2013). Analysis was performed by GC/MS.	50	n. d.
鄰苯二甲酸二丁酯 / DBP (Dibutyl phthalate) (CAS No.: 84-74-2)	mg/kg		50	n. d.
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.
鄰苯二甲酸二異丁酯 / DIBP (Di- isobutyl phthalate) (CAS No.: 84-69- 5)	mg/kg		50	n. d.
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.

備註(Note):

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



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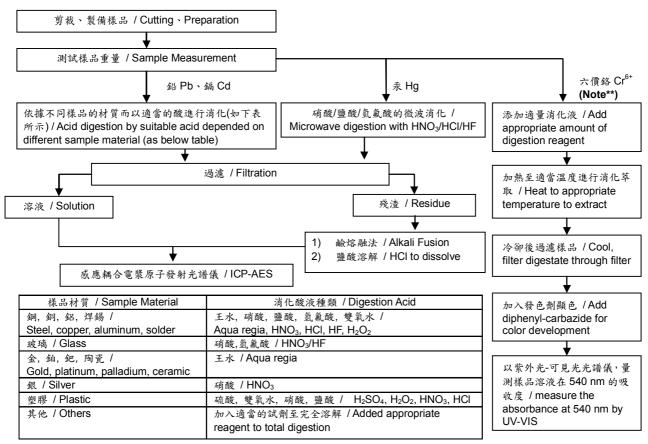
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<u>重金屬流程圖 / Analytical flow c</u>hart of Heavy Metal

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: 王志瑋 / Technician: JR Wang
- 測試負責人:張啟興 / Supervisor: Troy Chang



Note** (For IEC 62321)

- (1) 針對非金屬材料加入鹼性消化液,加熱至 90~95℃ 萃取. / For non-metallic material, add alkaline digestion reagent and heat to 90~95℃
- (2) 針對金屬材料加入純水,加熱至沸騰萃取. / For metallic material, add pure water and heat to boiling.

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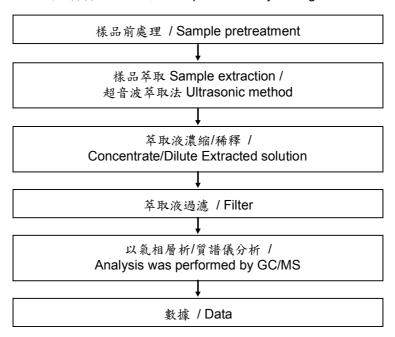
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六溴環十二烷分析流程圖 / Analytical flow chart - HBCDD

測試人員:涂雅苓 / Technician: Yaling Tu

號碼(No.): CE/2017/10168

測試負責人:張啟興 / Supervisor: Troy Chang





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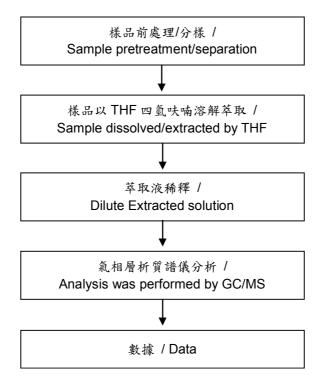
號碼(No.): CE/2017/10168

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

測試人員:徐毓明 / Technician: Andy Shu

測試負責人:張啟興 / Supervisor: Troy Chang

【測試方法/Test method: IEC 62321-8】



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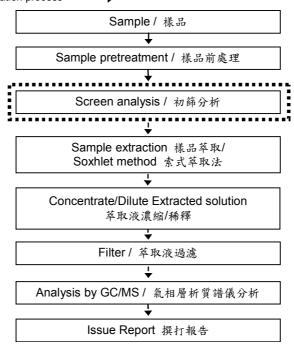
<u>多溴聯苯/多溴聯苯醚分析流程圖 / Analytical flow chart - PBB/PBDE</u>

測試人員:涂雅苓 / Technician: Yaling Tu

號碼(No.): CE/2017/10168

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 _ - - - →



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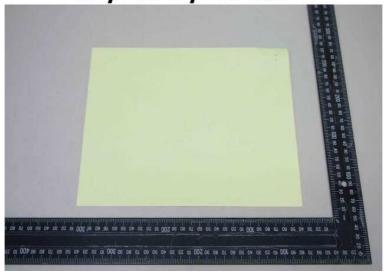
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* 照片中如有箭頭標示,則表示為實際檢測之樣品/部位. * (The tested sample / part is marked by an arrow if it's shown on the photo.)

CE/2017/10168



** 報告結尾 (End of Report) **