

## **Test Report**

號碼(No.): EKR22801425 日期(Date): 01-Sep-2022 頁數(Page): 1 of 47

榮成紙業股份有限公司 (LONGCHEN PAPER & PACKAGING CO., LTD.)

彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

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 the applicant as):

\_\_\_\_\_\_

送樣廠商(Sample Submitted By)

: 榮成紙業股份有限公司 (LONGCHEN PAPER & PACKAGING CO., LTD.)

樣品名稱(Sample Name)

: CORRUGATING MEDIUM (瓦楞芯紙)

收件日(Sample Receiving Date)

: 22-Aug-2022

測試期間(Testing Period)

: 22-Aug-2022 to 01-Sep-2022

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 鎬、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,其編、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.)

報告簽署人/張伯睿 博士/部 歷理**SGS**Ray Chang, Ph.D./ Department Manager
Signed for and on behalf
SGS TAIWAN LTD.

化學實驗室-高雄/Chemical Laboratory-Kaohsiung



PIN CODE: 67666451



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彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

#### 測試部位敘述 (Test Part Description)

No.1 : 棕色 瓦楞芯紙 (BROWN CORRUGATING MEDIUM)

#### 測試結果 (Test Results)

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
鎘 (Cd) (Cadmium (Cd)) (CAS No.: 7440-	參考IEC 62321-5: 2013,以感應耦合電漿	mg/kg	2	n.d.	100
43-9)	發射光譜儀分析。(With reference to IEC				
	62321-5: 2013, analysis was performed				
	by ICP-OES.)				
鉛 (Pb) (Lead (Pb)) (CAS No.: 7439-92-1)	參考IEC 62321-5: 2013 · 以感應耦合電漿	mg/kg	2	5.19	1000
	發射光譜儀分析。(With reference to IEC				
	62321-5: 2013, analysis was performed				
	by ICP-OES.)				
汞 (Hg) (Mercury (Hg)) (CAS No.: 7439-	參考IEC 62321-4: 2013+ AMD1: 2017	mg/kg	2	n.d.	1000
97-6)	以感應耦合電漿發射光譜儀分析。(With				
	reference to IEC 62321-4: 2013+ AMD1:				
	2017, analysis was performed by ICP-				
) (TA)	OES.)				
六價鉻 Cr(VI) (Hexavalent Chromium	參考IEC 62321-7-2: 2017,以紫外光-可見	mg/kg	8	n.d.	1000
Cr(VI)) (CAS No.: 18540-29-9)	光分光光度計分析。(With reference to				
	IEC 62321-7-2: 2017, analysis was				
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	performed by UV-VIS.)	41	-		
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)	   參考IEC 62321-6: 2015,以氣相層析儀/質	mg/kg	5	n.d.	-
五溴聯苯 (Pentabromobiphenyl)	譜儀分析。(With reference to IEC 62321-	mg/kg	5	n.d.	-
六溴聯苯 (Hexabromobiphenyl)	6: 2015, analysis was performed by	mg/kg	5	n.d.	-
七溴聯苯 (Heptabromobiphenyl)	GC/MS.)	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.	-
多溴聯苯總和 (Sum of PBBs)		mg/kg	-	n.d.	1000



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測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
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)	   参考IEC 62321-6: 2015 · 以氣相層析儀/質	mg/kg	5	n.d.	-
五溴聯苯醚 (Pentabromodiphenyl ether)	譜儀分析。(With reference to IFC 62321- ┗	mg/kg	5	n.d.	-
六溴聯苯醚 (Hexabromodiphenyl ether)	6: 2015, analysis was performed by	mg/kg	5	n.d.	-
七溴聯苯醚 (Heptabromodiphenyl ether)	GC/MS.)	mg/kg	5	n.d.	-
八溴聯苯醚 (Octabromodiphenyl ether)	GC/1413.)	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.	-
多溴聯苯醚總和 (Sum of PBDEs)		mg/kg	-	n.d.	1000
鄰苯二甲酸丁苯甲酯 (BBP) (Butyl benzyl		mg/kg	50	n.d.	1000
phthalate (BBP)) (CAS No.: 85-68-7)					
鄰苯二甲酸二丁酯 (DBP) (Dibutyl		mg/kg	50	n.d.	1000
phthalate (DBP)) (CAS No.: 84-74-2)					
鄰苯二甲酸二異丁酯 (DIBP) (Diisobutyl		mg/kg	50	n.d.	1000
phthalate (DIBP)) (CAS No.: 84-69-5)					
鄰苯二甲酸二(2-乙基己基)酯 (DEHP) (Di-	   参考IEC 62321-8: 2017 · 以氣相層析儀/質	mg/kg	50	n.d.	1000
(2-ethylhexyl) phthalate (DEHP)) (CAS	iii 儀分析。(With reference to IEC 62321-				
No.: 117-81-7)	8: 2017, analysis was performed by				
鄰苯二甲酸二異壬酯 (DINP) (Diisononyl	GC/MS.)	mg/kg	50	n.d.	-
phthalate (DINP)) (CAS No.: 28553-12-	GC/1413.)				
0, 68515-48-0)					
鄰苯二甲酸二異癸酯 (DIDP) (Diisodecyl		mg/kg	50	n.d.	-
phthalate (DIDP)) (CAS No.: 26761-40-					
0, 68515-49-1)					
鄰苯二甲酸二正辛酯 (DNOP) (Di-n-octyl		mg/kg	50	n.d.	-
phthalate (DNOP)) (CAS No.: 117-84-0)					



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彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
滅蟻靈 (Mirex) (CAS No.: 2385-85-5)	參考US EPA 3550C: 2007 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.)	mg/kg	4	n.d.	-
多氯聯苯 (PCBs) (Polychlorinated biphenyls (PCBs))	參考US EPA 3550C: 2007‧以氣相層析儀/ 質譜儀分析。(With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.)	mg/kg	0.5	n.d.	-
多氯奈 (PCNs) (Polychlorinated naphthalene (PCNs))	參考US EPA 3550C: 2007 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.)	mg/kg	5	n.d.	-
全氟辛酸 (PFOA)及其鹽類 (Perfluorooctanoic acid (PFOA) and it's salt) (CAS No.: 335-67-1 and its salts)	參考CEN/TS 15968: 2010 · 以液相層析串 聯質譜儀分析。(With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.)	mg/kg	0.01	n.d.	-
全氟辛烷磺酸及其鹽類 (PFOS and its salts) (CAS No.: 1763-23-1 and its salts)	參考CEN/TS 15968: 2010 · 以液相層析串 聯質譜儀分析。(With reference to CEN/TS 15968: 2010, analysis was performed by LC/MS/MS.)	mg/kg	0.01	n.d.	-
富馬酸二甲酯 (DMFu) (Dimethyl fumarate (DMFu)) (CAS No.: 624-49-7)	參考US EPA 3550C: 2007·以氣相層析儀/ 質譜儀分析。(With reference to US EPA 3550C: 2007, analysis was performed by GC/MS.)	mg/kg	0.1	n.d.	-
偶氮染料 (AZO Dyes)					
對-胺基聯苯 (4-Aminobiphenyl) (CAS No.: 92-67-1)	參考EN ISO 14362-1: 2017,以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-



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彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
聯苯胺 (Benzidine) (CAS No.: 92-87-5)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
4-氯鄰甲苯胺 (4-chloro-o-toluidine) (CAS No.: 95-69-2)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	ß	n.d.	-
2-萘胺 (2-Naphthylamine) (CAS No.: 91-59-8)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
鄰-胺基偶氮甲苯 (o-Aminoazotoluene) (CAS No.: 97-56-3)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
5-硝基-鄰-甲苯胺 (5-Nitro-o-toluidine) (CAS No.: 99-55-8)	參考EN ISO 14362-1: 2017‧以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
4-氯苯胺 (4-Chloroaniline) (CAS No.: 106-47-8)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-



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彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
4-甲氧基-間-苯二胺 / 2,4-二胺基苯甲醚 (4-Methoxy-m-phenylenediamine / 2,4-Diaminoanisole) (CAS No.: 615-05-4)	參考EN ISO 14362-1: 2017‧以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
4,4'-二胺基二苯甲烷 (4,4'-Diaminodiphenylmethane) (CAS No.: 101-77-9)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	З	n.d.	-
3,3'-二氯聯苯胺 (3,3'- Dichlorobenzidine) (CAS No.: 91-94-1)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
3,3'-二甲氧基聯苯胺 (3,3'- Dimethoxybenzidine) (CAS No.: 119- 90-4)	參考EN ISO 14362-1: 2017·以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
3,3'-二甲基聯苯胺 (3,3'- Dimethylbenzidine) (CAS No.: 119-93- 7)	參考EN ISO 14362-1: 2017·以氣相層析 質譜儀及高效液相層析儀/二極體陣列偵測 器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
4,4'-亞甲基二-鄰-苯胺 (4,4'- Methylenedi-o-toluidine) (CAS No.: 838-88-0)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-



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彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
6-甲氧基-間-甲苯胺 (6-Methoxy-m-toluidine) (CAS No.: 120-71-8)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
4,4'-亞甲基-雙(2-氯苯胺) (4,4'- Methylene-bis-(2-chloro-Aniline)) (CAS No.: 101-14-4)	參考EN ISO 14362-1: 2017‧以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
4,4'-二胺基二苯醚 (4,4'-Oxydianiline) (CAS No.: 101-80-4)	參考EN ISO 14362-1: 2017‧以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
4,4'-硫代雙苯胺 (4,4'-Thiodianiline) (CAS No.: 139-65-1)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
鄰-甲苯胺 (o-Toluidine) (CAS No.: 95-53-4)	參考EN ISO 14362-1: 2017·以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-
2,4-二氨基甲苯 (2,4-Diaminotoluene) (CAS No.: 95-80-7)	參考EN ISO 14362-1: 2017 · 以氣相層析質譜儀及高效液相層析儀/二極體陣列偵測器分析。(With reference to EN ISO 14362-1: 2017, analysis was performed by GC/MS and HPLC/DAD.)	mg/kg	3	n.d.	-



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測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
2,4,5-三甲基苯胺 (2,4,5-	參考EN ISO 14362-1: 2017,以氣相層析	mg/kg	3	n.d.	-
Trimethylaniline) (CAS No.: 137-17-7)	質譜儀及高效液相層析儀/二極體陣列偵測				
	器分析。(With reference to EN ISO				
	14362-1: 2017, analysis was performed				
	by GC/MS and HPLC/DAD.)				
鄰-甲氧基苯胺 (2-Methoxyaniline) (CAS	參考EN ISO 14362-1: 2017,以氣相層析	mg/kg	3	n.d.	-
No.: 90-04-0)	質譜儀及高效液相層析儀/二極體陣列偵測				
	器分析。(With reference to EN ISO				
	14362-1: 2017, analysis was performed				
	by GC/MS and HPLC/DAD.)				
4-胺基偶氮苯 (4-Aminoazobenzene)	參考EN ISO 14362-1: 2017 and EN ISO	mg/kg	3	n.d.	-
(CAS No.: 60-09-3)	14362-3: 2017,以氣相層析質譜儀及高效				
	液相層析儀/二極體陣列偵測器分析。(With				
	reference to EN ISO 14362-1: 2017 and				
	EN ISO 14362-3: 2017, analysis was				
	performed by GC/MS and HPLC/DAD.)				
2,4-二甲基苯胺 (2,4-Xylidine) (CAS No.:	參考EN ISO 14362-1: 2017,以氣相層析	mg/kg	3	n.d.	-
95-68-1)	質譜儀及高效液相層析儀/二極體陣列偵測				
	器分析。(With reference to EN ISO				
	14362-1: 2017, analysis was performed				
	by GC/MS and HPLC/DAD.)				
2,6-二甲基苯胺 (2,6-Xylidine) (CAS No.:	參考EN ISO 14362-1: 2017,以氣相層析	mg/kg	3	n.d.	-
87-62-7)	質譜儀及高效液相層析儀/二極體陣列偵測				
	器分析。(With reference to EN ISO				
	14362-1: 2017, analysis was performed				
	by GC/MS and HPLC/DAD.)				



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榮成紙業股份有限公司 (LONGCHEN PAPER & PACKAGING CO., LTD.) 彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
二氯甲醚 (Bis(chloromethyl )ether) (CAS	參考US EPA 8270E: 2018,以氣相層析儀/	mg/kg	1	n.d.	-
No.: 542-88-1)	質譜儀分析。(With reference to US EPA				
	8270E: 2018, analysis was performed by				
	GC/MS.)				
2-[2-羥基-3',5'-二-叔-丁基苯基]-苯並三	參考US EPA 3550C: 2007,以氣相層析儀/	mg/kg	5	n.d.	-
唑 (紫外線吸收劑320) (2-benzotriazol-2-	質譜儀分析。(With reference to US EPA				
yl-4,6-di-tert-butylphenol (UV-320))	3550C: 2007, analysis was performed by				
(CAS No.: 3846-71-7)	GC/MS.)				
三丁基錫 (TBT) (Tributyl tin (TBT))	參考ISO 17353: 2004 · 以氣相層析儀/火	mg/kg	0.03	n.d.	=-
	焰光度偵測器分析。(With reference to				
	ISO 17353: 2004, analysis was				
	performed by GC/FPD.)				
氧化雙三丁基錫 (TBTO) (Bis(tributyltin)	由三丁基錫測試結果計算得之。	mg/kg	0.03 🛦	n.d.	=
oxide (TBTO)) (CAS No.: 56-35-9)	(Calculated from the result of Tributyl				
	Tin (TBT).)				
三苯基錫 (TPT) (Triphenyl tin (TPT))	參考ISO 17353: 2004 · 以氣相層析儀/火	mg/kg	0.03	n.d.	-
	焰光度偵測器分析。(With reference to				
	ISO 17353: 2004, analysis was				
	performed by GC/FPD.)				
硫 (S) (Sulfur (S)) (CAS No.: 7704-34-9)	參考US EPA 3052: 1996,以感應耦合電漿	mg/kg	2	1080	-
	發射光譜儀分析。(With reference to US				
	EPA 3052: 1996, analysis was performed				
	by ICP-OES.)				
砷 (As) (Arsenic (As)) (CAS No.: 7440-	參考US EPA 3052: 1996,以感應耦合電漿	mg/kg	2	n.d.	-
38-2)	發射光譜儀分析。(With reference to US				
	EPA 3052: 1996, analysis was performed				
	by ICP-OES.)				



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彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
氟 (F) (Fluorine (F)) (CAS No.: 14762-94-		mg/kg	50	n.d.	-
8)					
氯 (CI) (Chlorine (CI)) (CAS No.: 22537-	]  参考BS EN 14582: 2016·以離子層析儀分	mg/kg	50	273	-
15-1)	が。(With reference to BS EN 14582:				
溴 (Br) (Bromine (Br)) (CAS No.: 10097-	2016, analysis was performed by IC.)	mg/kg	50	n.d.	-
32-2)	2010, analysis was performed by ic.)				
碘 (I) (Iodine (I)) (CAS No.: 14362-44-8)		mg/kg	50	n.d.	-
氟氯碳化物 (Chlorofluorocarbons)					
(CFCs)					
CFC-11 (CAS No.: 75-69-4)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
CFC-12 (CAS No.: 75-71-8)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
CFC-13 (CAS No.: 75-72-9)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
CEC 111 (CACAL DEA EC 2)	GC/MS.)	4			
CFC-111 (CAS No.: 354-56-3)	参考US EPA 5021A: 2014・以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
CFC-112 (CAS No.: 76-12-0)	GC/MS.) 参考US EPA 5021A: 2014 · 以氣相層析儀/	ma/ka	1	n.d.	
CFC-112 (CAS NO / 0-12-0)	参考US EPA 5UZIA. 2UI4・以報相層作職/   質譜儀分析・(With reference to US EPA	mg/kg	Т	n.u.	-
	5021A: 2014, analysis was performed by				
	GC/MS.)				
	GC/IVI3.)				



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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
CFC-113 (CAS No.: 76-13-1)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
CFC-114 (CAS No.: 76-14-2)	参考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
CFC-115 (CAS No.: 76-15-3)	参考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
CFC-211 (CAS No.: 422-78-6)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
CFC-212 (CAS No.: 3182-26-1)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
CFC-213 (CAS No.: 2354-06-5)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
CFC-214 (CAS No.: 29255-31-0)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
CFC-215 (CAS No.: 4259-43-2)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-



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彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
CFC-216 (CAS No.: 661-97-2)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
CFC-217 (CAS No.: 422-86-6)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
氟氯氫烷碳化物					
(Hydrochlorofluorocarbons) (HCFCs)					
HCFC-21 (CAS No.: 75-43-4)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HCFC-22 (CAS No.: 75-45-6)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
LIGES 21 (CACAL FOR 70 4)	GC/MS.)	/1			
HCFC-31 (CAS No.: 593-70-4)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
LICEC 121 (CACAL- , 254 14 2)	GC/MS.) 参考US EPA 5021A: 2014,以氣相層析儀/		1		
HCFC-121 (CAS No.: 354-14-3)		mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
HCFC-122 (CAS No.: 354-21-2)	GC/MS.) 参考US EPA 5021A: 2014 · 以氣相層析儀/	malka	1	n.d.	
	多名US EPA 5021A. 2014・以氣怕層析儀/   質譜儀分析。(With reference to US EPA	mg/kg	Т	11.0.	-
	頁間 競分 析。 (With reference to US EPA   5021A: 2014, analysis was performed by				
	GC/MS.)				



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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
HCFC-123 (CAS No.: 306-83-2)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-124 (CAS No.: 2837-89-0)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-131 (CAS No.: 359-28-4)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-141b (CAS No.: 1717-00-6)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-221 (CAS No.: 422-26-4)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-222 (CAS No.: 422-49-1)	參考US EPA 5021A: 2014,以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-223 (CAS No.: 422-52-6)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-224 (CAS No.: 422-54-8)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-



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彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
HCFC-225ca (CAS No.: 422-56-0)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-225cb (CAS No.: 507-55-1)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-226 (CAS No.: 431-87-8)	參考US EPA 5021A: 2014,以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-231 (CAS No.: 421-94-3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-232 (CAS No.: 460-89-9)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	1
HCFC-233 (CAS No.: 7125-84-0)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-234 (CAS No.: 425-94-5)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-235 (CAS No.: 460-92-4)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-



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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
HCFC-241 (CAS No.: 666-27-3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-242 (CAS No.: 460-63-9)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-243 (CAS No.: 460-69-5)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-244	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-251 (CAS No.: 421-41-0)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-252 (CAS No.: 819-00-1)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-253 (CAS No.: 460-35-5)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-261 (CAS No.: 420-97-3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-



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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
HCFC-262 (CAS No.: 421-02-03)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-271 (CAS No.: 430-55-7)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-133a (CAS No.: 75-88-7)	參考US EPA 5021A: 2014,以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-142b (CAS No.: 75-68-3)	參考US EPA 5021A: 2014,以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-132b (CAS No.: 1649-08-7)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-141	參考US EPA 5021A: 2014,以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-142	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HCFC-151	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-



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測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
HCFC-225	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
海龍 (Halons)					
Halon-1211 (CAS No.: 353-59-3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
Halon-1301 (CAS No.: 75-63-8)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
海龍-2402 (Halon-2402) (CAS No.: 124-73-2)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
溴甲烷 (Bromomethane) (CAS No.: 74-83-9)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
不完全鹵化氟溴化物 (Hydrobromofluorocarbons) (HBFCs)					
HBFC-121B4 (C2HFBr4)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-122B3 (C2HF2Br3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-



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榮成紙業股份有限公司 (LONGCHEN PAPER & PACKAGING CO., LTD.)

彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
HBFC-123B2 (C2HF3Br2)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-124B1 (C2HF4Br)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-131B3 (C2H2FBr3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-132B2 (C2H2F2Br2)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-133B1 (C2H2F3Br)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-141B2 (C2H3FBr2)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-142B1 (C2H3F2Br)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HBFC-151B1 (C2H4FBr)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-



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彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)	限值 (Limit)
( restricting)	(Memod)	(31111)		No.1	(=)
HBFC-21B2 (CHFBr2) (CAS No.: 1868-	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
53-7)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-221B6 (C3HFBr6)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-222B5 (C3HF2Br5)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-223B4 (C3HF3Br4)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-224B3 (C3HF4Br3)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-225B2 (C3HF5Br2)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-226B1 (C3HF6Br)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-22B1 (CHF2Br) (CAS No.: 1511-	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
62-2)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				



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彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)	限值 (Limit)
				No.1	
HBFC-231B5 (C3H2FBr5)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-232B4 (C3H2F2Br4)	参考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-233B3 (C3H2F3Br3)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-234B2 (C3H2F4Br2)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-235B1 (C3H2F5Br)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-241B4 (C3H3FBr4)	参考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-242B3 (C3H3F2Br3)	参考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-243B2 (C3H3F3Br2)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				



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彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)	限值 (Limit)
				No.1	
HBFC-244B1 (C3H3F4Br)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-251B3 (C3H4FBr3)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-252B2 (C3H4F2Br2)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-253B1 (C3H4F3Br)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-261B2 (C3H5FBr2)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-262B1 (C3H5F2Br)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-271B1 (C3H6FBr)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HBFC-31B1 (CH2FBr) (CAS No.: 373-52-	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
4)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				



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彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
氫氟碳化合物 (Hydrofluorocarbon) (HFCs)					
HFC-125 (C2HF5)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HFC-134 (C2H2F4)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HFC-134a (CH2FCF3) (CAS No.: 811- 97-2)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HFC-143 (CH3F3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HFC-143a (CH3F3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HFC-152a (C2H4F2) (CAS No.: 75-37-6)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
HFC-227ea (C3HF7) (CAS No.: 431-89- 0)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-



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榮成紙業股份有限公司 (LONGCHEN PAPER & PACKAGING CO., LTD.)

彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
HFC-23 (CHF3) (CAS No.: 75-46-7)	参考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-236ea (C3H2F6) (CAS No.: 431-63-	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
0)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-236fa (CAS No.: 431-63-0)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-245ca (C3H3F5)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-245fa (C3H3F5)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-32 (CH2F2) (CAS No.: 75-10-5)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-365mfc (C4H5F5)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
HFC-43-10mee (C5H2F10)	参考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
•	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				



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彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
HFC-41 (CH3F) (CAS No.: 593-53-3)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	=
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
全氟化碳 (Perfluorocarbon) (PFCs)					
六氟乙烷 (Fluorocarbon 116) (CAS No.:	参考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
76-16-4)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
1,4-二氫八氟丁烷 (1,4-	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
dihydrooctafluorobutane) (CAS No.:	質譜儀分析。(With reference to US EPA				
377-36-6)	5021A: 2014, analysis was performed by				
	GC/MS.)				
2-全氟甲基戊烷 (2-	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
Perfluoromethylpentane) (CAS No.:	質譜儀分析。(With reference to US EPA				
355-04-4)	5021A: 2014, analysis was performed by				
	GC/MS.)				
十氟丁烷 (Decafluorobutane) (CAS No.:	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
355-25-9)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
四氟甲烷 (Freon 14) (CAS No.: 75-73-0)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
八氟丙烷 (Freon 218) (CAS No.: 76-19-	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
7)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
2-全氟甲基丁烷 (Nonafluor-2-	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
(trifluoromethyl)butane) (CAS No.: 594-	質譜儀分析。(With reference to US EPA				
91-2)	5021A: 2014, analysis was performed by				
	GC/MS.)				



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彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result)	限值 (Limit)
				No.1	
全氟-1-丁烯 (Perfluor-1-butene) (CAS	参考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
No.: 357-26-6)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
全氟異丁烯 (Perfluorisobutene) (CAS	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
No.: 382-21-8)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
全氟己烷 (Perfluorohexane) (CAS No.:	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
355-42-0)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
全氟戊烷 (Perfluoro-n-pentane) (CAS	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
No.: 678-26-2)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
八氟環丁烷 (Freon C318) (CAS No.: 115-	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
25-3)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
氯碳氫化物 (Chlorinate hydrocarbon)	. ,				
(CHCs)					
四氯甲烷 (四氯化碳) (Carbon	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
tetrachloride) (CAS No.: 56-23-5)	質譜儀分析。(With reference to US EPA	3 3			
, ,	5021A: 2014, analysis was performed by				
	GC/MS.)				
1,1,1-三氯乙烷 (1,1,1-Trichloroethane)	参考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
(CAS No.: 71-55-6)	質譜儀分析。(With reference to US EPA				
,	5021A: 2014, analysis was performed by				
	GC/MS.)				
	GC/ 1913.)				



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榮成紙業股份有限公司 (LONGCHEN PAPER & PACKAGING CO., LTD.)

彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

測試項目 (Test Items)	測試方法 (Method)	單位 (Unit)	MDL	結果 (Result) No.1	限值 (Limit)
1,1,1,2-四氯乙烷 (1,1,1,2- Tetrachloroethane) (CAS No.: 630-20- 6)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
1,1,2,2-四氯乙烷 (1,1,2,2- Tetrachloroethane) (CAS No.: 79-34-5)	参考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
1,1,2-三氯乙烷 (1,1,2-Trichloroethane) (CAS No.: 79-00-5)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
1,1-二氯乙烷 (1,1-Dichloroethane) (CAS No.: 75-34-3)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
1,1-二氯乙烯 (1,1-Dichloroethylene) (CAS No.: 75-35-4)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
1,1-二氯丙烯 (1,1-Dichloropropene) (CAS No.: 563-58-6)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
1,2,3-三氯丙烷 (1,2,3-Trichloropropane) (CAS No.: 96-18-4)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-
1,2-二氯乙烷 (1,2-Dichloroethane) (CAS No.: 107-06-2)	參考US EPA 5021A: 2014 · 以氣相層析儀/ 質譜儀分析。(With reference to US EPA 5021A: 2014, analysis was performed by GC/MS.)	mg/kg	1	n.d.	-



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榮成紙業股份有限公司 (LONGCHEN PAPER & PACKAGING CO., LTD.)

彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
1,2-二氯丙烷 (1,2-Dichloropropane)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
(CAS No.: 78-87-5)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
1,3-二氯丙烷 (1,3-Dichloropropane)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
(CAS No.: 142-28-9)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
2,2-二氯丙烷 (2,2-Dichloropropane)	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
(CAS No.: 594-20-7)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
氯仿 (Chloroform) (CAS No.: 67-66-3)	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
氯甲烷 (Chloromethane) (CAS No.: 74-	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
87-3)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
順-1,2-二氯乙烯 (cis-1,2-	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
Dichloroethene) (CAS No.: 156-59-2)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
順-1,3-二氯丙烯 (cis-1,3-	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
Dichloropropene) (CAS No.: 10061-01-	質譜儀分析。(With reference to US EPA				
5)	5021A: 2014, analysis was performed by				
	GC/MS.)				
二氯甲烷 (Dichloromethane) (CAS No.:	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
75-09-2)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				



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榮成紙業股份有限公司 (LONGCHEN PAPER & PACKAGING CO., LTD.)

彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
四氯乙烯 (Tetrachloroethene) (CAS No.:	參考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
127-18-4)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
反-1,2-二氯乙烯 (trans-1,2-	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
Dichloroethene) (CAS No.: 156-60-5)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
反-1,3-二氯丙烯 (trans-1,3-	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
Dichloropropene) (CAS No.: 10061-02-	質譜儀分析。(With reference to US EPA				
6)	5021A: 2014, analysis was performed by				
	GC/MS.)				
三氯乙烯 (Trichloroethylene) (CAS No.:	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
79-01-6)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
氯乙烷 (Chloroethane) (CAS No.: 75-00-	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
3)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
六氯-1,3-丁二烯 (Hexachlorobutadiene)	参考US EPA 5021A: 2014,以氣相層析儀/	mg/kg	1	n.d.	-
(CAS No.: 87-68-3)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
溴氯甲烷 (Bromochloromethane) (CAS	參考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
No.: 74-97-5)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				
六氟化硫 (SF6) (Sulphur hexafluoride	参考US EPA 5021A: 2014 · 以氣相層析儀/	mg/kg	1	n.d.	-
(SF6)) (CAS No.: 2551-62-4)	質譜儀分析。(With reference to US EPA				
	5021A: 2014, analysis was performed by				
	GC/MS.)				



# **Test Report**

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榮成紙業股份有限公司 (LONGCHEN PAPER & PACKAGING CO., LTD.)

彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

測試項目 (Tast Harra)	測試方法	單位	MDL	結果 (Pagult)	限值
(Test Items)	(Method)	(Unit)		(Result) No.1	(Limit)
甲醛 (Formaldehyde) (CAS No.: 50-00-	参考ISO 17226-1: 2021 · 以液相層析儀/	mg/kg	3	n.d.	_
0)	二極體陣列偵測器分析。(With reference	<i>J, J</i>			
	to ISO 17226-1: 2021, analysis was				
	performed by LC/DAD.)				
銻 (Sb) (Antimony (Sb)) (CAS No.: 7440-	參考US EPA 3052: 1996,以感應耦合電漿	mg/kg	2	n.d.	-
36-0)	發射光譜儀分析。(With reference to US				
	EPA 3052: 1996, analysis was performed				
	by ICP-OES.)				
二丁基羥基甲苯 (BHT) (Butylated	參考ASTM D4275: 2017,以氣相層析儀/	mg/kg	1	n.d.	-
hydroxy toluene (BHT)) (CAS No.: 128-	質譜儀分析。(With reference to ASTM				
37-0)	D4275: 2017, analysis was performed by				
	GC/MS.)				
N,N-二甲基甲醯胺 (N,N-	參考US EPA 3550C: 2007,以氣相層析儀/	mg/kg	10	n.d.	-
dimethylformamide) (CAS No.: 68-12-	質譜儀分析。(With reference to US EPA				
2)	3550C: 2007, analysis was performed by				
	GC/MS.)				
阿特靈 (Aldrin) (CAS No.: 309-00-2)	參考US EPA 8081B: 2007,以氣相層析儀/	mg/kg	0.15	n.d.	-
	質譜儀分析。(With reference to US EPA				
	8081B: 2007, analysis was performed by				
	GC/MS.)				
地特靈 (Dieldrin) (CAS No.: 60-57-1)	參考US EPA 8081B: 2007 · 以氣相層析儀/	mg/kg	0.15	n.d.	
	質譜儀分析。(With reference to US EPA				
	8081B: 2007, analysis was performed by				
	GC/MS.)				
安特靈 (Endrin) (CAS No.: 72-20-8)	參考US EPA 8081B: 2007 · 以氣相層析儀/	mg/kg	0.15	n.d.	-
	質譜儀分析。(With reference to US EPA				
	8081B: 2007, analysis was performed by				
\\ \tag{\tag{\tag{\tag{\tag{\tag{\tag{	GC/MS.)		0.5-		
滴滴涕 (DDT) (Dichloro-diphenyl-	參考US EPA 8081B: 2007 · 以氣相層析儀/	mg/kg	0.15	n.d.	-
trichloro ethane (DDT)) (CAS No.: 50-	質譜儀分析。(With reference to US EPA				
29-3)	8081B: 2007, analysis was performed by				
	GC/MS.)				



# **Test Report**

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榮成紙業股份有限公司 (LONGCHEN PAPER & PACKAGING CO., LTD.)

彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

測試項目	測試方法	單位	MDL	結果	限值
(Test Items)	(Method)	(Unit)		(Result)	(Limit)
				No.1	
氯丹 (Chlordane) (CAS No.: 57-74-9)	參考US EPA 8081B: 2007 · 以氣相層析儀/	mg/kg	0.15	n.d.	-
	質譜儀分析。(With reference to US EPA				
	8081B: 2007, analysis was performed by				
	GC/MS.)				
毒殺芬 (Toxaphene) (CAS No.: 8001-35-	参考US EPA 8081B: 2007,以氣相層析儀/	mg/kg	0.15	n.d.	-
2)	質譜儀分析。(With reference to US EPA				
	8081B: 2007, analysis was performed by				
	GC/MS.)				
六氯苯 (Hexachlorobenzene) (CAS No.:	参考US EPA 8081B: 2007,以氣相層析儀/	mg/kg	0.15	n.d.	-
118-74-1)	質譜儀分析。(With reference to US EPA				
	8081B: 2007, analysis was performed by				
	GC/MS.)				
石綿 (Asbestos)					
陽起石綿 (Actinolite) (CAS No.: 77536-		-	-	Negative	-
66-4)	┃ 参考EPA 600/R-93/116: 1993・以立體顯				
褐石綿/鐵石綿 (Amosite) (CAS No.:	微鏡(SM)與分散染色式偏光顯微鏡(DS-	-	-	Negative	-
12172-73-5)	PLM)及X光繞射光譜分析法(XRD)分析。				
斜方角閃石綿 (Anthophyllite) (CAS No.:	(With reference to EPA 600/R-93/116:	-	-	Negative	-
77536-67-5)	1993, analysis was performed by Stereo				
白石綿/溫石綿 (Chrysotile) (CAS No.:	Microscope (SM), Dispersion Staining	-	=	Negative	
12001-29-5)	Polarized Light Microscope (DS-PLM)				
青石綿 (Crocidolite) (CAS No.: 12001-	and X-ray Diffraction Spectrometer	-	-	Negative	-
28-4)	(XRD).)				
透閃石綿 (Tremolite) (CAS No.: 77536-	(((())))	-	-	Negative	-
68-6)					
聚氯乙烯 (Polyvinyl chloride) (PVC)	參考ASTM E1252: 2013 · 以傅立葉轉換紅	**	-	Negative	-
	外線光譜儀及焰色法分析。(With				
	reference to ASTM E1252: 2013, analysis				
	was performed by FT-IR and Flame Test.)				
紅磷 (Red Phosphorus)	以熱裂解-氣相層析儀/質譜儀分析。	**	-	Negative	-
	(Analysis was performed by Pyrolyzer-				
	GC/MS.)				



## **Test Report**

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榮成紙業股份有限公司 (LONGCHEN PAPER & PACKAGING CO., LTD.)

彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

#### 備註(Note):

- 1. mg/kg = ppm; 0.1wt% = 0.1% = 1000ppm
- 2. MDL = Method Detection Limit (方法偵測極限值)
- 3. n.d. = Not Detected (未檢出); 小於MDL / Less than MDL
- 4. "-" = Not Regulated (無規格值)
- 5. \*\*= Qualitative analysis (No Unit) 定性分析(無單位)
- 6. Negative = Undetectable 陰性(未偵測到); Positive = Detectable 陽性(已偵測到)
- 7. 石綿定性分析試驗範圍: <0.1%~100%,石綿鑑定的判定基準是以檢出含有石綿纖維為『Positive』,未檢出石綿纖維為『Negative』。(Testing range of asbestos qualitative analysis is from less than 0.1% to 100%. The judgment criterion: asbestos fibers being found is shown as "Positive"; asbestos fibers not being found is shown as "Negative".)
- 8. 全氟辛烷磺酸及其鹽類包含 (PFOS and its salts including):

CAS No.: 29081-56-9, 2795-39-3, 29457-72-5, 70225-14-8, 56773-42-3, 251099-16-8, 307-35-7.

9. 全氟辛酸及其鹽類包含 (PFOA and its salts including):

CAS No.: 3825-26-1, 335-95-5, 2395-00-8, 335-93-3, 335-66-0.

10. ▲:MDL是針對元素/測試化合物之評估。(The MDL was evaluated for element / tested substance.)

換算公式 (Conversion Formula): AX = A × F

AX	A	F
氧化雙三丁基錫	二丁甘纪 (Tributyl Tip) (TDT)	1 0276
(Bis(tributyltin)oxide) (TBTO)	三丁基錫 (Tributyl Tin) (TBT)	1.0276

參數換算表 (Parameter Conversion Table):

https://eecloud.sgs.com/Region\_TW/DocDownload.aspx#otherDoc

11. 除非另有說明·參照ILAC-G8:09/2019·採用簡單二元(w=0)允收規則進行符合性判定;根據此規則·符合性結果之判定係以測試結果與限值做比較。(Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019. According to this rule, the judgement of conformity is based on the comparing test results with limits.)



## **Test Report**

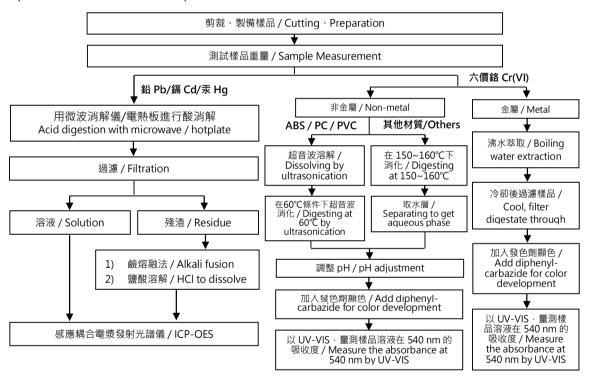
號碼(No.): EKR22801425 日期(Date): 01-Sep-2022

榮成紙業股份有限公司 (LONGCHEN PAPER & PACKAGING CO., LTD.) 彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

#### 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. ( $Cr^{6+}$  test method excluded)



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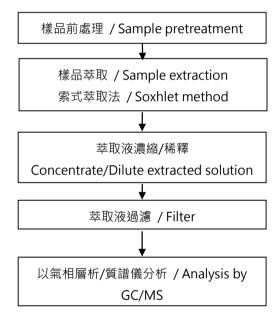


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榮成紙業股份有限公司 (LONGCHEN PAPER & PACKAGING CO., LTD.) 彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

#### 多溴聯苯/多溴聯苯醚 分析流程圖 / PBB/PBDE analytical FLOW CHART





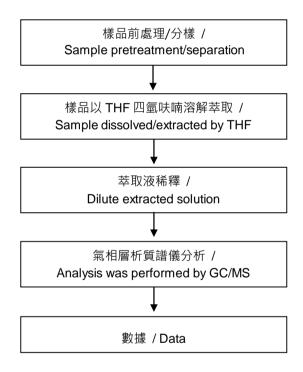
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榮成紙業股份有限公司 (LONGCHEN PAPER & PACKAGING CO., LTD.) 彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

#### 可塑劑分析流程圖 / Analytical flow chart of phthalate content

【測試方法/Test method: IEC 62321-8】





## **Test Report**

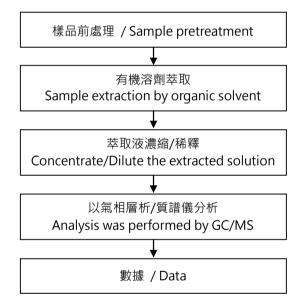
號碼(No.): EKR22801425 日期(Date): 01-Sep-2022 頁數(Page): 35 of 47

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#### 分析流程圖 / Analytical flow chart

【適用於:多氯聯苯、多氯奈、多氯三聯苯、滅蟻靈、氯化石蠟、DBBT】

\*Apply to: PCBs, PCNs, PCTs, Mirex, Chlorinated Paraffins, DBBT



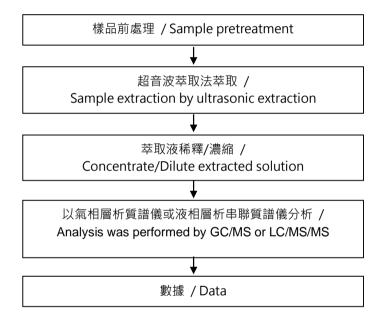


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榮成紙業股份有限公司 (LONGCHEN PAPER & PACKAGING CO., LTD.) 彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

全氟化合物(包含全氟辛酸/全氟辛烷磺酸/其相關化合物等等)分析流程圖 / Analytical flow chart – PFAS (including PFOA/PFOS/its related compound, etc.)



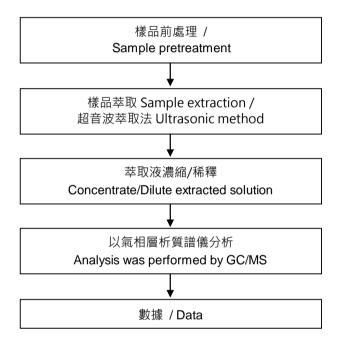


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#### 富馬酸二甲酯分析流程圖 / Analytical flow chart of Dimethyl Fumarate content





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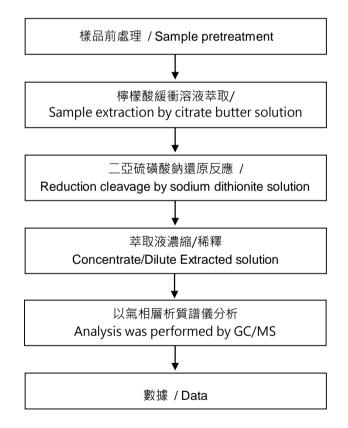
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#### 偶氮分析流程圖 / Analytical flow chart of Azo dyes

【測試方法/Test method: ISO 14362-1】



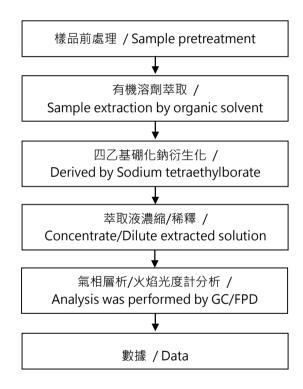


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#### 有機錫分析流程圖 / Analytical flow chart - Organic-Tin





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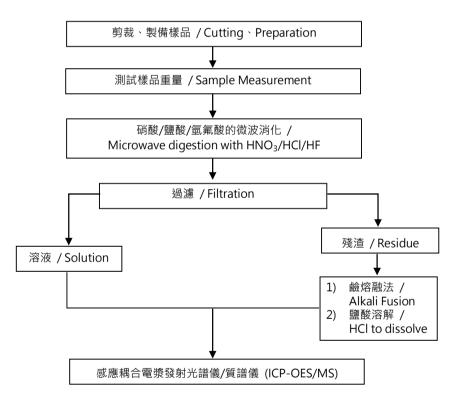
彰化縣二林鎮廣興里廣興巷1之1號 (NO.1-1, GUANGXING LANE GUANGXING VILLAGE, ERLIN TOWNSHIP, ZHANGHUA, TAIWAN 52652)

#### 元素(含重金屬)分析流程圖 / Analytical flow chart of Elements (Heavy metal included)

根據以下的流程圖之條件,樣品已完全溶解。

These samples were dissolved totally by pre-conditioning method according to below flow chart.

【參考方法/Reference method: US EPA 3051、US EPA 3052】



\* US EPA 3051 方法未添加氫氟酸 / US EPA 3051 method does not add HF.

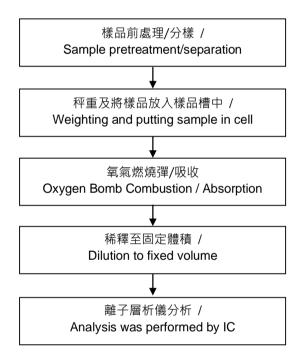


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#### 鹵素分析流程圖 / Analytical flow chart of Halogen





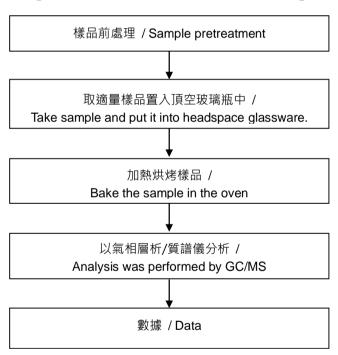
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# 揮發性有機化合物分析流程圖 / Analytical flow chart of volatile organic compounds (VOCs)

【参考方法/Reference method: US EPA 5021A】





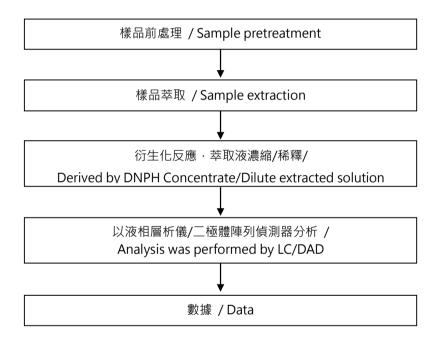
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#### 甲醛分析流程圖 / Analytical flow chart - Formaldehyde



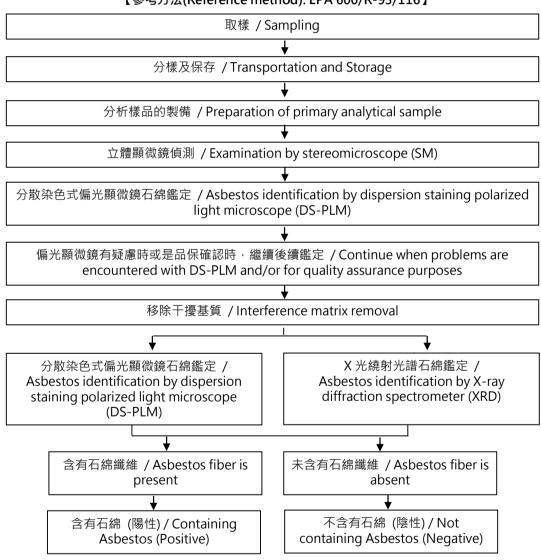


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#### 石綿鑑定分析流程圖 / Analysis flow chart for determination of Asbestos 【參考方法(Reference method): EPA 600/R-93/116】



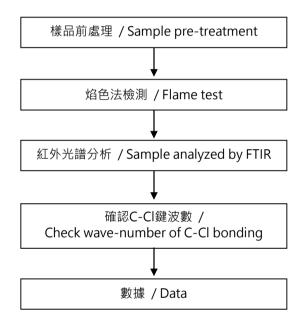


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#### 聚氯乙烯物質判定分析流程圖 / Analysis flow chart - PVC



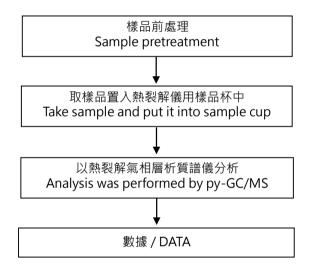


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#### 紅磷分析流程 / Analytical flow chart - Red phosphorus





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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.)

## EKR22801425



\*\* 報告結尾 (End of Report) \*\*