

# 材質溶出率 測試報告

報告編號(No.): HTF21800595

報告日期(DATE): 2021/09/01

請參考報告末頁樣品照片 (PLEASE REFER TO THE SAMPLE PHOTO AT THE

台灣積層工業股份有限公司 (TAIWAN LAMINATION INDUSTRIES, INC.)

桃園市中壢區新北園路11號(11 SHIN PEI YUAN RD., CHUNG LI TAIWAN 320-

頁數(PAGE): 1 of 9

### **Test Report**

台灣積層工業股份有限公司 (TAIWAN LAMINATION INDUSTRIES, INC.) 桃園市中壢區新北園路11號 (11 SHIN PEI YUAN RD., CHUNG LI TAIWAN 320-61)

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):

END OF THE REPORT ) /-

樣品名稱(Sample Description)

樣品包裝/數量(Sample Package/

樣品保存方式(Sample Packaging)

Quantity)

: 常溫 ( AMBIENT TEMP. )

OPP/PET/AL/LLDPE

霧面鋁箔PE袋

樣品型號(Style/Item No.) :

樣品批號(Lot. No.)

樣品材質(Sample Material)

送樣廠商(Sample Submitted By)

送樣廠商地址/電話/聯絡人(Company

Add/Tel/Contact Person)

61) / 03-4626789 / -: -

製造日期(Manufacturing Date) : -有效日期(Expiry Date) : -

收件日(Sample Receiving Date) : 2021/08/23

測試期間(Testing Period) : 2021/08/23 to 2021/09/01

#### 測試需求 (Test Requested)

依據客戶指定,參考中華民國食品器具容器包裝衛生標準 (102.08.20部授食字第1021350146號令修正) 進行測試。 測試項目請參閱測試結果表格。 (As specified by client, with reference to Sanitation Standard for Food Utensils, Containers and Packages (MOHW Food No. 1021350146, amended on 2013/08/20) to conduct test. Please refer to the result table(s) for testing item(s).)

測試結果(Test Results) : 請見下一頁。(Please refer to next page(s).)

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## **Test Report**

台灣積層工業股份有限公司 ( TAIWAN LAMINATION INDUSTRIES, INC. ) 桃園市中壢區新北園路11號 ( 11 SHIN PEI YUAN RD., CHUNG LI TAIWAN 320-61 )

#### 測試部位敘述(Test Part Description)

No.1 : 軟性包材 (整體樣品) (FLEXIBLE PACKAGING (WHOLE SAMPLE))

No.2 : 軟性包材 (與食物接觸面) (FLEXIBLE PACKAGING (FOOD CONTACT SIDE))

#### 測試結果(Test Results)

測試項目 (Test Item(s))	測試方法 (Method)	單位 (Unit)	LOQ/ LOD	結果 (Result)		食品衛 生法規
(Test itelli(s))	(Metriod)	(OIIII)		No.1	No.2	(Limit)
★鉛 / Lead (Pb)	食品器具、容器、包裝檢驗方法-塑 膠類之檢驗 (107年10月4日衛授食字 第1071901983號公告)·以感應耦合 電漿發射光譜儀分析。/ Methods of Test for Food Utensils, Containers	ppm	5	n.d.		100
★鎘 / Cadmium (Cd)	and Packages - Test of Plastics (MOHW Food No. 1071901983 announced, October 04, 2018), analysis was performed by ICP- OES.	ppm	0.5	n.d.	-	100
★高錳酸鉀消耗量-(水, 60℃, 30分鐘) / Potassium permanganate consumption- (water, 60℃, 30 min)		ppm	3	1	n.d.	10
★蒸發殘渣-(水, 60°C, 30分鐘) / Evaporation residue-(water, 60°C, 30 min)	↑ 食品器具、容器、包裝檢驗方法-聚 ☑烯(PE)塑膠類之檢驗 (107年9月17	ppm	3		5	30
★蒸發殘渣-(4%醋酸, 60℃, 30分鐘) / Evaporation residue-(4% acetic acid, 60℃, 30 min)	日衛授食字第1071901780號公告)。 / Methods of Test for Food Utensils, Containers and Packages - Test of	ppm	3	-	7	30
★蒸發殘渣-(正庚烷, 25℃, 1小時) / Evaporation residue-(n-Heptane, 25℃, 1 hr)	Polyethylene (PE) Plastic Products (MOHW Food No. 1071901780 announced, September 17, 2018).	ppm	3		7	150 (*2)
★蒸發殘渣-(20%酒精, 60℃, 30分鐘) / Evaporation residue-(20% alcohol, 60℃, 30 min)		ppm	3		4	30

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## **Test Report**

台灣積層工業股份有限公司 ( TAIWAN LAMINATION INDUSTRIES, INC. ) 桃園市中壢區新北園路11號 ( 11 SHIN PEI YUAN RD., CHUNG LI TAIWAN 320-61 )

測試項目	測試方法	單位	LOQ/	結 (Res		食品衛 生法規
(Test Item(s))	(Method)	(Unit)	LOD	No.1	No.2	エムパ (Limit)
★重金屬(以鉛計)-(4%醋酸, 60℃, 30分鐘) / Heavy metal (as Pb)-(4% acetic acid, 60℃, 30 min)	食品器具、容器、包裝檢驗方法-聚乙烯(PE)塑膠類之檢驗 (107年9月17日衛授食字第1071901780號公告)。/ Methods of Test for Food Utensils, Containers and Packages - Test of Polyethylene (PE) Plastic Products (MOHW Food No. 1071901780 announced, September 17, 2018).	ppm	-		<1	1
★鄰苯二甲酸二(2-乙基己基)酯 (正庚烷, 25℃, 1小時) / DEHP (Di-(2-ethylhexyl) phthalate) (CAS No.: 117-81-7) (n-Heptane, 25℃, 1 hr)		ppm	0.05	-	n.d.	1.5
★鄰苯二甲酸二丁酯 (正庚烷, 25℃, 1小時) / DBP (Di-n-butyl phthalate) (CAS No.: 84-74-2) (n-Heptane, 25℃, 1 hr)	食品器具、容器、包裝檢驗方法-塑膠類之檢驗 (107年10月4日衛授食字第1071901983號公告) · 以氣相層析質譜儀分析。/ Methods of Test for Food Utensils, Containers and Packages - Test of Plastics (MOHW Food No. 1071901983 announced, October 04, 2018), analysis was performed by GC/MS.	ppm	0.05		n.d.	0.3
★鄰苯二甲酸丁苯甲酯 (正庚烷, 25℃, 1小時) / BBP (Butyl Benzyl phthalate) (CAS No.: 85-68-7) (n-Heptane, 25℃, 1 hr)		ppm	0.05		n.d.	30
★鄰苯二甲酸二異癸酯 (正庚烷, 25℃, 1小時) / DIDP (Diisodecyl phthalate) (CAS No.: 26761-40-0; 68515-49-1) (n-Heptane, 25℃, 1 hr)		ppm	0.5		n.d.	9
★鄰苯二甲酸二異壬酯 (正庚烷, 25℃, 1小時) / DINP (Diisononyl phthalate) (CAS No.: 28553-12-0; 68515-48-0) (n-Heptane, 25℃, 1 hr)		ppm	0.5		n.d.	9
★己二酸二(2-乙基己基)酯 (正庚烷, 25℃, 1 小時) / DEHA (Di-2-ethylhexyl Adipate) (CAS No.: 103-23-1) (n-Heptane, 25℃, 1 hr)		ppm	0.05		n.d.	18

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## **Test Report**

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測試項目 (Test Item(s))	測試方法 (Method)	單位 (Unit)	單位 LOQ/ Unit) LOD	結果 (Result)		食品衛 生法規
(Test itelli(s))	(Metriod)	(OIIII)		No.1	No.2	(Limit)
★鄰苯二甲酸二(2-乙基己基)酯 / DEHP (Di- (2-ethylhexyl) phthalate) (CAS No.: 117-81- 7)	CNS 15138-1 (民國101年),以氣相層析質譜儀分析。/ With reference to CNS 15138-1 (2012), analysis was performed by GC/MS.	%	0.003	n.d.		0.1
★鄰苯二甲酸二丁酯 / DBP (Di-n-butyl phthalate) (CAS No.: 84-74-2)		%	0.003	n.d.		0.1
★鄰苯二甲酸丁苯甲酯 / BBP (Butyl Benzyl phthalate) (CAS No.: 85-68-7)		%	0.003	n.d.	-	0.1
★鄰苯二甲酸二異癸酯 / DIDP (Diisodecyl phthalate) (CAS No.: 26761-40-0; 68515-49-1)		%	0.01	n.d.		0.1
★鄰苯二甲酸二甲酯 / DMP (Dimethyl phthalate) (CAS No.: 131-11-3)		%	0.003	n.d.		0.1
★鄰苯二甲酸二異壬酯 / DINP (Diisononyl phthalate) (CAS No.: 28553-12-0; 68515-48-0)		%	0.01	n.d.		0.1
★鄰苯二甲酸二正辛酯 / DNOP (Di-n-octyl phthalate) (CAS No.: 117-84-0)		%	0.003	n.d.		0.1
★鄰苯二甲酸二乙酯 / DEP (Diethyl phthalate) (CAS No.: 84-66-2)		%	0.003	n.d.		0.1



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## **Test Report**

台灣積層工業股份有限公司 (TAIWAN LAMINATION INDUSTRIES, INC.) 桃園市中壢區新北園路11號 (11 SHIN PEI YUAN RD., CHUNG LI TAIWAN 320-61)

#### 備註(Note):

- 1. 檢驗報告僅就委託者之委託事項提供檢驗結果,不對產品合法性做判斷。(The test report merely reflects the test results of the consigned matters of the client and is not a certification of the legitimacy of the related products.)
- 2. 本檢驗報告之所有檢驗內容,均依委託事項執行檢驗,如有不實,願意承擔完全責任。(All contents in the test report are conducted according to the customer-specified items. If there is any falsehood, we are willing to take corresponding responsibility.)
- 3. 本報告不得分離或擷錄使用。(The report is invalid if it is partly reproduced or used.)
- 4. mg/kg = ppm; 0.1wt% = 1000 ppm
- 5. LOQ = 定量極限・若該測試項目屬於定量分析則以「LOQ」表示; LOD = 偵測極限・若該測試項目屬於定性分析則以「LOD」表示。(LOQ = Limit of Quantification, for quantitative analyses; LOD = Limit of Detection, for qualitative analyses.)
- 6. n.d. = Not Detected (未檢出) = Less than (小於) LOQ/LOD
- 7. "-" = Not Regulated (無規格值)
- 8. "---" = Not Conducted (未測項目)
- 9. (\*2): 針對加工及調理過程溫度100℃以下之產品。 (For the products which are heated to not higher than 100℃ during food processing and cooking.)
- 10. 測試項目名稱旁有★者,為本實驗室通過衛生福利部食品藥物管理署認證項目。 (The test method marked with ★ is accredited by MOHW.)
- 11. 法規標準值係依據衛生福利部食品藥物管理署102年08月20日部授食字第1021350146號令 食品器具容器包裝衛生標準之法規限值。 (The limit value(s) is/are according to "Sanitation Standard for Food Utensils, Containers and Packages (MOHW Food No. 1021350146, amended on 2013/08/20)", Taiwan Food and Drug Administration, Ministry of Health and Welfare.)



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# **Test Report**

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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.)

### HTF21800595 NO.1



### HTF21800595 NO.2



\*\* 報告結尾 (End of Report) \*\*

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## **Test Report**

台灣積層工業股份有限公司 ( TAIWAN LAMINATION INDUSTRIES, INC. ) 桃園市中壢區新北園路11號 ( 11 SHIN PEI YUAN RD., CHUNG LI TAIWAN 320-61 )

以下為申請廠商委託測試項目、測試方法、定量/偵測極限:

( The information requested from client is shown as below:)

#### HTF21800595

測試項目 (Test Items)	測試方法 (Method)	LOQ/LOD
★鉛 / Lead (Pb)  ★鍋 / Cadmium (Cd)	食品器具、容器、包裝檢驗方法-塑膠類之檢驗 (107年10月4日衛授食字第1071901983號公告),以感應耦合電漿發射光譜儀分析。/ Methods of Test for Food Utensils, Containers and Packages - Test of Plastics (MOHW Food No. 1071901983 announced, October 04, 2018), analysis was performed by ICP-OES.	
★高錳酸鉀消耗量-(水, 60°C, 30分鐘) / Potassium permanganate consumption-(water, 60°C, 30 min)  ★蒸發殘渣-(水, 60°C, 30分鐘) / Evaporation residue-(water, 60°C, 30 min)  ★蒸發殘渣-(4%醋酸, 60°C, 30分鐘) / Evaporation residue-(4% acetic acid, 60°C, 30 min)  ★蒸發殘渣-(正庚烷, 25°C, 1小時) / Evaporation residue-(n-Heptane, 25°C, 1 hr)  ★蒸發殘渣-(20%酒精, 60°C, 30分鐘) / Evaporation residue-(20% alcohol, 60°C, 30 min)  ★重金屬(以鉛計)-(4%醋酸, 60°C, 30分鐘) / Heavy metal (as Pb)-(4% acetic acid, 60°C, 30 min)	食品器具、容器、包裝檢驗方法-聚乙烯(PE) 塑膠類之檢驗 (107年9月17日衛授食字第 1071901780號公告)。/ Methods of Test for Food Utensils, Containers and Packages -	詳見測試結果之定量/偵測極限。 (Please refer to the result table above.)

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以下為申請廠商委託測試項目、測試方法、定量/偵測極限:

( The information requested from client is shown as below:)

#### HTF21800595

測試項目 (Test Items)	測試方法 (Method)	LOQ/LOD
(Test Items)  ★鄰苯二甲酸二(2-乙基己基)酯 (正庚烷, 25°C, 1小時) / DEHP (Di-(2-ethylhexyl) phthalate) (CAS No.: 117-81-7) (n-Heptane, 25°C, 1 hr)  ★鄰苯二甲酸二丁酯 (正庚烷, 25°C, 1小時) / DBP (Di-n-butyl phthalate) (CAS No.: 84-74-2) (n-Heptane, 25°C, 1 hr)  ★鄰苯二甲酸丁苯甲酯 (正庚烷, 25°C, 1小時) / BBP (Butyl Benzyl phthalate) (CAS No.: 85-68-7) (n-Heptane, 25°C, 1 hr)  ★鄰苯二甲酸二異癸酯 (正庚烷, 25°C, 1小時) / DIDP (Diisodecyl phthalate) (CAS No.: 26761-40-0; 68515-49-1) (n-Heptane, 25°C, 1 hr)  ★鄰苯二甲酸二異壬酯 (正庚烷, 25°C, 1小時) / DINP (Diisononyl phthalate) (CAS No.: 28553-12-0; 68515-48-0) (n-Heptane, 25°C, 1 hr)  ★己二酸二(2-乙基己基)酯 (正庚烷, 25°C, 1 小時) / DEHA (Di-2-ethylhexyl Adipate)		詳見測試結果之定量/偵測極限。 (Please refer to the result table above.)
(CAS No.: 103-23-1) (n-Heptane, 25°C, 1 hr)		

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以下為申請廠商委託測試項目、測試方法、定量/偵測極限:

( The information requested from client is shown as below:)

#### HTF21800595

測試項目 (Test Items)	測試方法 (Method)	LOQ/LOD
(Test Items)  ★鄰苯二甲酸二(2-乙基己基)酯 / DEHP (Di-(2-ethylhexyl) phthalate) (CAS No.: 117-81-7)  ★鄰苯二甲酸二丁酯 / DBP (Di-n-butyl phthalate) (CAS No.: 84-74-2)  ★鄰苯二甲酸丁苯甲酯 / BBP (Butyl Benzyl phthalate) (CAS No.: 85-68-7)  ★鄰苯二甲酸二異癸酯 / DIDP (Diisodecyl phthalate) (CAS No.: 26761-40-0; 68515-49-1)  ★鄰苯二甲酸二甲酯 / DMP (Dimethyl phthalate) (CAS No.: 131-11-3)  ★鄰苯二甲酸二異壬酯 / DINP (Diisononyl phthalate) (CAS No.: 28553-12-0; 68515-48-0)  ★鄰苯二甲酸二正辛酯 / DNOP (Di-n-octyl		詳見測試結果之定量/偵測極限。 (Please refer to the result table above.)
phthalate) (CAS No.: 117-84-0)  ★鄰苯二甲酸二乙酯 / DEP (Diethyl phthalate) (CAS No.: 84-66-2)		

測試項目名稱旁有★者,為本實驗室通過衛生福利部食品藥物管理署認證項目。(The test method marked with ★ is accredited by MOHW.)



# 水氣及氧氣透過率 測試報告

報告編號(No.): HTF21800598 報告日期(DATE): 2021/09/03 頁數(PAGE): 1 of 3

### **Test Report**

台灣積層工業股份有限公司 (TAIWAN LAMINATION INDUSTRIES, INC.) 桃園市中壢區新北園路11號 (11 SHIN PEI YUAN RD., CHUNG LI TAIWAN 320-61)

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):

台灣積層工業股份有限公司 (TAIWAN LAMINATION INDUSTRIES, INC.) 送樣廠商(Sample Submitted By)

樣品名稱(Sample Description) 霧面鋁箔PE袋

OPP/PET/AL/LLDPE 樣品材質(Sample Material)

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

收件日(Sample Receiving Date) 2021/08/23

測試期間(Testing Period) 2021/08/23 to 2021/09/03

測試結果 (Test Results) : 請見下一頁。(Please refer to next page(s).)

Singh Hsiao / Asst. Mana Signed for and on behalf SGS TAIWAN LTD. Chemical Laboratory - Taipei



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# **Test Report**

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#### 測試部位敘述(Test Part Description)

No.1 : 軟性包材 (與食物接觸面) (FLEXIBLE PACKAGING (FOOD CONTACT SIDE))

#### 測試結果(Test Results)

測試項目 (Test Item(s))	測試方法 (Method)	單位 (Unit)	結果 (Result)
	` ′	, ,	No.1
透濕度 / Water vapor transmission rate	參考ASTM F1249. (溫度: 37.8°C,濕度: 90%) / With reference to ASTM F1249. (Temperature: 37.8°C, Moisture: 90%)	g/(m²-day)	0.034*
透氧度 / Oxygen transmission rate	參考ASTM D3985. (溫度: 23°C·濕度: 0%) / With reference to ASTM D3985. (Temperature: 23°C, Moisture: 0%)	c.c./(m <sup>2</sup> -day)	0.002*

#### 備註(Note):

- 1. 透濕度試驗範圍(Water Vapor Transmission Rate test range): 0.05~500 g/(m²-day) 透氧度試驗範圍(Oxygen Transmission Rate test range): 0.5~1000 c.c./(m²-day)
- 2. 本報告不得分離或擷錄使用。(The report is invalid if it is partly reproduced or used.)
- 3. 此項目外包至其他實驗室執行。 (The testing item(s) was/were subcontracted to other Laboratory.)
- 4. "\*" = 結果位於試驗範圍以外,測試值僅供參考。(The result is out of the test range, the value is for reference only.)

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# **Test Report**

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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.)

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\*\* 報告結尾 (End of Report) \*\*