

材質溶出率  
測試報告

## Test Report

號碼(No.) : CT/2018/30712

日期(Date) : 2018/03/23

頁數(Page) : 1 of 6

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) :

送樣廠商(Sample Submitted By) : 台灣積層工業股份有限公司 (TAIWAN LAMINATION INDUSTRIES, INC.)  
樣品名稱(Sample Description) : 高阻隔透明PE袋(厚材質)  
樣品型號(Style/Item No) : -  
樣品批號(Lot No.) : -  
樣品材質(Sample Material) : VMPET/PET/LLDPE  
製造日期(Manufacturing Date) : -  
收件日期(Sample Receiving Date) : 2018/03/14  
測試期間(Testing Period) : 2018/03/14 TO 2018/03/23

## 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 was amended on 2013/08/20) to conduct test. Please refer to result table for testing item(s).

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

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

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桃園市中壢區新北園路11號

11 SHIN PEI YUAN RD., CHUNG LI TAIWAN 320-61



### 測試結果(Test Results)

測試部位(PART NAME)No. 1 : PE袋 (PE BAG)

測試部位(PART NAME)No. 2 : PE袋 (與食物接觸面) (PE BAG (FOOD CONTACT SIDE))

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	LOQ	結果 (Result)		限值 (Limit)
				No. 1	No. 2	
鉛 / Lead (Pb)	ppm	依據食品器具、容器、包裝檢驗方法-聚乙烯(PE)塑膠類之檢驗 (MOHWU0008.02, 104年5月11日部授食字第1041900696號公告), 以ICP-AES分析. / According to Sanitation Standard for Food Utensils, Containers and Packages - Polyethylene(PE)	5	n. d.	---	100
鎘 / Cadmium (Cd)	ppm	Plastic Products (MOHWU0008.02, MOHW Food No. 1041900696 announced, May 11, 2015). Analysis was performance by ICP-AES.	0.5	n. d.	---	100
高錳酸鉀消耗量-(水, 60°C, 30分鐘) / Potassium permanganate consumption-(water, 60°C, 30 min)	ppm	依據食品器具、容器、包裝檢驗方法-聚乙烯(PE)塑膠類之檢驗 (MOHWU0008.02, 104年5月11日部授食字第1041900696號公告). / According to Sanitation Standard for Food Utensils, Containers and Packages - Polyethylene(PE) Plastic Products (MOHWU0008.02, MOHW Food No. 1041900696 announced, May 11, 2015).	3	---	n. d.	10
蒸發殘渣-(水, 60°C, 30分鐘) / Evaporation residue-(water, 60°C, 30 min)	ppm		10	---	n. d.	30
蒸發殘渣-(4%醋酸, 60°C, 30分鐘) / Evaporation residue-(4% acetic acid, 60°C, 30 min)	ppm		10	---	n. d.	30
蒸發殘渣-(正庚烷, 25°C, 1小時) / Evaporation residue-(n-Heptane, 25°C, 1 hr)	ppm		10	---	n. d.	150 (*2)
蒸發殘渣-(20%酒精, 60°C, 30分鐘) / Evaporation residue-(20% alcohol, 60°C, 30 min)	ppm		10	---	n. d.	30

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	LOQ	結果 (Result)		限值 (Limit)
				No. 1	No. 2	
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)	ppm	依據食品器具、容器、包裝檢驗方法-塑膠類之檢驗(102年11月13日部授食字第1021950607號公告), 以氣相層析/質譜儀檢測。 / According to Sanitation Standard for Food Utensils, Containers and Packages - Plastics (MOHW Food No. 1021950607 announced, November 13, 2013). Analysis was performed by GC/MS.	0.05	---	n. d.	1.5
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)	ppm		0.05	---	n. d.	0.3
鄰苯二甲酸丁苄甲酯 (正庚烷, 25°C, 1小時) / BBP (Butyl Benzyl phthalate) (CAS No. : 85-68-7) (n-Heptane, 25°C, 1 hr)	ppm		0.05	---	n. d.	30
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)	ppm		0.5	---	n. d.	9
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)	ppm		0.5	---	n. d.	9
己二酸二(2-乙基己基)酯 (正庚烷, 25°C, 1小時) / DEHA (Di-2-ethylhexyl Adipate) (CAS No. : 103-23-1) (n-Heptane, 25°C, 1 hr)	ppm		0.05	---	n. d.	18

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桃園市中壢區新北園路11號

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測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	DL	結果 (Result)		限值 (Limit)
				No. 1	No. 2	
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)	ppm	依據食品器具、容器、包裝檢驗方法-聚乙烯(PE)塑膠類之檢驗(MOHWU0008.02, 104年5月11日部授食字第1041900696號公告)。 / According to Sanitation Standard for Food Utensils, Containers and Packages - Polyethylene(PE) Plastic Products (MOHWU0008.02, MOHW Food No. 1041900696 announced, May 11, 2015).	1	---	Negative	1

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	MDL	結果 (Result)		限值 (Limit)
				No. 1	No. 2	
鄰苯二甲酸二(2-乙基己基)酯 / DEHP (Di-(2-ethylhexyl) phthalate) (CAS No. : 117-81-7)	%	依據CNS 15138-1 (民國101年), 以氣相層析/質譜儀檢測。 / According 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
鄰苯二甲酸二甲酯 / DMP (Dimethyl phthalate) (CAS No. : 131-11-3)	%		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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桃園市中壢區新北園路11號

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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	No. 2	
鄰苯二甲酸二異壬酯 / DINP (Diisononyl phthalate) (CAS No. : 28553-12-0; 68515-48-0)	%	依據CNS 15138-1 (民國101年), 以氣相層析/質譜儀檢測。 / According to CNS 15138-1 (2012). Analysis was performed by GC/MS.	0.01	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

## 備註(Note) :

- 0.1wt% = 1000ppm
- LOQ = Limit of Quantification (定量極限) ; MDL = Method Detection Limit (方法偵測極限值) ; DL = Detection Limit (偵測極限)
- n. d. = Not Detected (未檢出) = 小於 (less than) LOQ / MDL / DL
- (\*) : 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.)
- Negative = Undetectable (未檢出); Positive = Detectable (檢出)
- "---" = Not Conducted (未測項目)
- 測試報告僅就委託測試者之委託事項提供測試結果, 至若本產品之合法性, 仍應由主管機關依法判斷。(The test report is the test result issued by the testing institutions as requested by the consignor. Regarding to the legitimacy of the product, it shall be determined by the authorities according to the law.)

## 測試報告

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台灣積層工業股份有限公司

TAIWAN LAMINATION INDUSTRIES, INC.

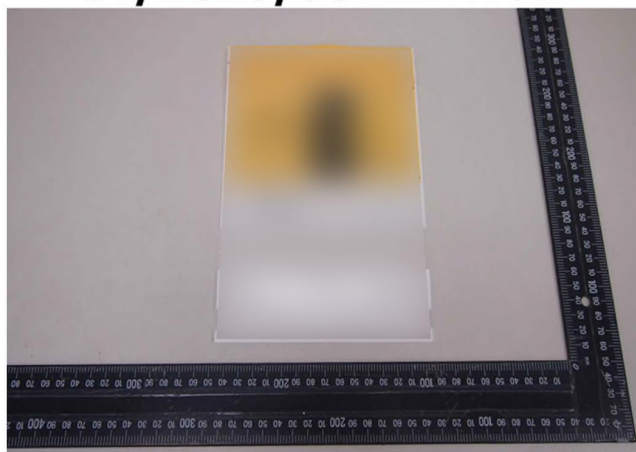
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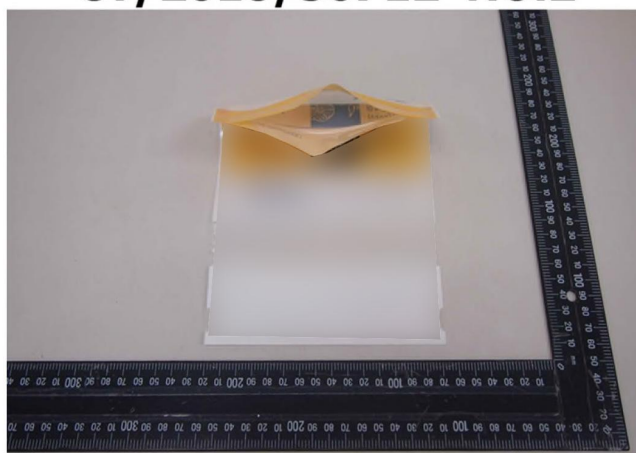


\* 照片中如有箭頭標示，則表示為實際檢測之樣品/部位。\*  
(The tested sample / part is marked by an arrow if it's shown on the photo.)

### CT/2018/30712 NO.1



### CT/2018/30712 NO.2



\*\* 報告結尾 (End of Report) \*\*

(為保護客戶客製化產品之權益，照片經模糊處理)

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# 水氣及氧氣透過率 測試報告

## Test Report

號碼(No.) : CT/2018/31480

日期(Date) : 2018/04/18

頁數(Page): 1 of 3

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



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送樣廠商(Sample Submitted By) : 台灣積層工業股份有限公司 (TAIWAN LAMINATION INDUSTRIES, INC.)  
樣品名稱(Sample Description) : 高阻隔透明PE袋(厚材質)  
樣品材質(Sample Material) : VMPET/PET/LLDPE  
收件日期(Sample Receiving Date) : 2018/03/29  
測試期間(Testing Period) : 2018/03/29 TO 2018/04/18

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

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



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### 測試結果(Test Results)

測試部位(PART NAME)No. 1 : 塑膠袋(與食物接觸面) (PLASTIC BAG (FOOD CONTACT SIDE))

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	結果 (Result)
			No. 1
透濕度 / Moisture permeability (△)	g/m <sup>2</sup> /day	參考ASTM F1249. / With reference to ASTM F1249. (溫度 / Temperature: 37.8°C, 濕度 / Moisture: 90%)	0.337
	g/m <sup>2</sup> /day		0.248
	g/m <sup>2</sup> /day		0.365
	g/m <sup>2</sup> /day		0.265
	g/m <sup>2</sup> /day		0.232
	g/m <sup>2</sup> /day		0.366
透氧度 / Oxygen permeability (△)	c.c./m <sup>2</sup> /day	參考ASTM D3985. / With reference to ASTM D3985. (溫度 / Temperature: 23°C , 濕度 / Moisture: 0%)	0.016
	c.c./m <sup>2</sup> /day		0.115
	c.c./m <sup>2</sup> /day		0.334
	c.c./m <sup>2</sup> /day		0.169
	c.c./m <sup>2</sup> /day		0.000
	c.c./m <sup>2</sup> /day		0.032

### 備註(Note) :

- (△): 透濕度試驗限值 (Water vapor transmission rate test limit value) : < 500 g/m<sup>2</sup>/day  
透氧度試驗限值 (Oxygen transmission rate test limit value): < 1000 c.c./m<sup>2</sup>/day

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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.)

### CT/2018/31480



\*\* 報告結尾 (End of Report) \*\*

(為保護客戶客製化產品之權益，照片經模糊處理)

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