

Test Report 測試報告

Applicant 申請廠商 : Two Moms Corporation Limited
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Number 報告號碼 : TWNC00878510
Issue Date 報告發行日期 : Jun 18, 2020

Sample Description 樣品敘述 :

One (1) Group of Submitted Samples Said to Be:

壹(一)件所送檢樣品據指為:

Name Of Sample : 2angels 2 in 1 silicone pack n' go puzzleplate

樣品名稱

Item No. : AFS0006-STD

型號

Country of Origin : Taiwan

原產地 台灣

Date Sample Received : Apr 20, 2020

樣品收到日期

Date Test Started : Apr 20, 2020 / May 13, 2020 / Jun 01, 2020

開始測試日期

Test Conducted 測試內容:

Tests were conducted by applicant's request, for details please refer to attached pages.

依據客戶要求執行測試，結果請參考附頁。

Conclusion 結論:

Please see page two.

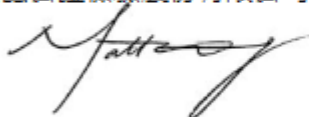
請見第二頁。

Authorized by 審核者:

On Behalf of Intertek Testing Services

Taiwan Limited

全國公證檢驗股份有限公司



Matt Wang 王政雄

Sr. Manager 資深經理

Signed by 報告簽署人:



Thomas Chou 周世民

Manager 經理



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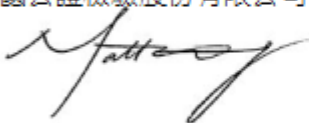
Conclusion 結論:

<u>Tested Sample 測試樣品</u>	<u>Standard 標準</u>	<u>Result 結果</u>
<u>Tested Components of Submitted Samples 測試部位</u>	As per German Food, Commodities and Feed Act(LFGB), plastic recommendation XV 依據德國食品、日用品和飼料法(LFGB)塑膠建議 XV	
	– Volatile Organic Matter of Silicone Rubber 矽膠中揮發性有機物質	Pass 合格
	– Heavy Metal Content 重金屬含量	Pass 合格
	– Extractable Substances of Silicone Rubber 矽膠中的可萃取量	Pass 合格
	– Peroxide Residues of Silicone Rubber 矽膠中過氧化價	Pass 合格
	– Screening Test for Polycyclic Aromatic Hydrocarbons (PAHs) 多環芳香族化合物篩選測試	Pass 合格
	– Specific Migration of Organotin Test 特定溶出有機錫測試	Pass 合格
	Sensory Evaluation 感觀分析	Pass 合格
	– As per §64 LFGB L00.90-6 依據 LFGB 第 64 章 L00.90-6	

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Test Conducted 測試內容 :

1. Volatile Organic Matter of Silicone Rubber 矽膠中揮發性有機物質

As per LFGB plastic recommendation BII XV.
依據 LFGB 塑膠建議 BII XV。

I. Test Condition 測試條件 :
200°C for 4 hours 200°C , 4 小時

II. Test Result 測試結果 :

<u>Tested Component 測試部位</u>	<u>Result 結果 (%)</u>	<u>Limit 限值 (%)</u>
(1)	0.45	0.5
(2)	0.43	0.5
(3)	0.43	0.5

Remarks 備註: % = Percentage based on weight of tested sample 重量百分比

2. Heavy Metal Content 重金屬含量

Acid digestion method was used and total content was determined by Atomic Absorption Spectrophotometer (AAS).
酸消化方法並用原子吸收光譜儀(AAS)分析。

<u>Element 元素</u>	<u>Result 結果 (ppm)</u>			<u>Limit 限值 (ppm)</u>
	<u>(1)</u>	<u>(2)</u>	<u>(3)</u>	
Tot. Lead (Pb) 總鉛	ND	ND	ND	100
Tot. Cadmium (Cd) 總鎘	ND	ND	ND	100

Remarks: ppm = Parts per million based on weight of tested sample 百萬分之一 = mg/kg 毫克/仟克
備註 ND = Not detected 未檢測出
Detection limit 偵測極限 = 50 ppm



Test Conducted 測試內容 :

3. Extractable Substances of Silicone Rubber 矽膠中的可萃取量

As per LFGB, plastic recommendation XV.
 依據 LFGB 塑膠建議 BII XV。

Food Simulant 食物模擬物	Result 結果(%)			Limit 限值 (%)
	(1)	(2)	(3)	
3% (w/v) acetic acid 3%醋酸	< 0.10	< 0.10	< 0.10	0.5
10% (v/v) ethanol 10%乙醇	< 0.10	< 0.10	< 0.10	0.5
Water 水	< 0.10	< 0.10	< 0.10	0.5

Remarks: % = Percentage based on weight of tested sample 重量百分比
 備註 < = Less than 小於

4. Peroxide Residues of Silicone Rubber 矽膠中過氧化價

As per LFGB plastic recommendation BII XV.
 依據 LFGB 塑膠建議 BII XV。

Tested Component 測試部位	Result 結果
(1)	No positive reaction 無陽性反應
(2)	No positive reaction 無陽性反應
(3)	No positive reaction 無陽性反應

Requirement 要求: No positive reaction to peroxides 無過氧化價陽性反應



Test Conducted 測試內容 :

5. Screening Test for Polycyclic Aromatic Hydrocarbons (PAHs) 多環芳香族化合物篩選測試

With reference to AfPS GS 2014:01 PAK issued by the German committee on product safety (AfPS), by solvent extraction and determined by Gas Chromatography-Mass Spectrometer (GC-MS).

參考由 AfPS 發行的文件 AfPS GS 2014:01 PAK，以溶劑萃取並以氣相層析質譜儀分析。

Testing Item 測試項目	Result 結果 (mg/kg 毫克/仟克)		
	(1)	(2)	(3)
Polycyclic Aromatic Hydrocarbons (PAHs) 多環芳香族化合物			
Naphthalene 萘	ND	ND	ND
Acenaphthylene 芴烯	ND	ND	ND
Acenaphthene 芴	ND	ND	ND
Fluorene 芴	ND	ND	ND
Phenanthrene 菲	ND	ND	ND
Anthracene 蒽	ND	ND	ND
Fluoranthene 芘	ND	ND	ND
Pyrene 芘	ND	ND	ND
Chrysene 屈	ND	ND	ND
Benzo[a]anthracene 苯并[a]蒽	ND	ND	ND
Benzo[b]fluoranthene 苯并[b]芘	ND	ND	ND
Benzo[k]fluoranthene 苯并[k]芘	ND	ND	ND
Benzo[j]fluoranthene 苯并[j]芘	ND	ND	ND
Benzo[a]pyrene 苯并[a]芘	ND	ND	ND
Benzo[e]pyrene 苯并[e]芘	ND	ND	ND
Indeno[1,2,3-cd]pyrene 茛并[1,2,3-cd]芘	ND	ND	ND
Dibenzo[a,h]anthracene 二苯并[a,h]蒽	ND	ND	ND
Benzo[g,h,i]perylene 苯并[g,h,i]芘	ND	ND	ND
Sum of 18 PAHs 18 支 PAHs 總和	ND	ND	ND

Screening Limit 篩選限值:

1 mg/kg < Total PAHs PAHs 總和 < 10 mg/kg

0.2 mg/kg < Benzo[a]pyrene 苯并[a]芘 < 1 mg/kg

Remarks: ND = Not detected 未檢測出

備註 Detection limit 偵測極限 = 0.2 mg/kg 毫克/仟克



Test Conducted 測試內容 :

6. Specific Migration of Organotin Test 特定溶出有機錫測試

(I) Screening Test 篩檢測試

With reference to DIN EN ISO 17353, by Gas Chromatographic Mass-Spectrometer (GC-MS) analysis.
 參考 DIN EN ISO 17353, 以氣相層析質譜儀 (GC-MS) 分析。

Compound 化合物	Result 結果 (ppm)			Limit 限值 (ppm)
	(1)	(2)	(3)	
Monobutyltin (MBT) 一丁基錫	0.027(#)	0.032(#)	0.028(#)	ND
Monomethyltin (MeT) 一甲基錫	ND	ND	ND	0.18
Monooctyltin (MOT) 一辛基錫	ND	ND	ND	1.2
Dibutyltin (DBT) 二丁基錫	ND	ND	ND	ND
Dimethyltin (DMT) 二甲基錫	ND	ND	ND	0.18
Diocetyltn (DOT) 二辛基錫	ND	ND	ND	0.006
Didodecyltin 十二烷基錫	ND	ND	ND	0.05
Tetrabutyltin (TeBT) 四丁基錫	ND	ND	ND	ND
Tributyltin (TBT) 三丁基錫	ND	ND	ND	ND
Tricyclohexyltin (TcyT) 三環己基錫	ND	ND	ND	ND

Remarks: ppm = Parts per million based on weight of tested sample 百萬分之一 = mg/kg 毫克/千克
 備註 ND = Not detected 未檢測出
 Detection limit 偵測極限 = 0.025 ppm
 # = The total content exceeded relevant soluble limit; corresponding soluble organotin should be analyzed.
 總量測試結果超過相對應溶出限值，建議進一步分析溶出有機錫含量。

(II) Confirmation Test 確認測試

By Gas Chromatographic Mass-Spectrometer (GC-MS) analysis.
 以氣相層析質譜儀 (GC-MS) 分析。

Compound 化合物	Result 結果 (ppm)			Limit 限值 (ppm)
	(1)	(2)	(3)	
Monobutyltin (MBT) 一丁基錫	ND	ND	ND	ND
Monomethyltin (MeT) 一甲基錫	ND	ND	ND	0.18
Monooctyltin (MOT) 一辛基錫	ND	ND	ND	1.2
Dibutyltin (DBT) 二丁基錫	ND	ND	ND	ND
Dimethyltin (DMT) 二甲基錫	ND	ND	ND	0.18
Diocetyltn (DOT) 二辛基錫	ND	ND	ND	0.006
Didodecyltin 十二烷基錫	ND	ND	ND	0.05
Tetrabutyltin (TeBT) 四丁基錫	ND	ND	ND	ND
Tributyltin (TBT) 三丁基錫	ND	ND	ND	ND
Tricyclohexyltin (TcyT) 三環己基錫	ND	ND	ND	ND

Remarks: ppm = Parts per million based on weight of tested sample 百萬分之一 = mg/kg 毫克/千克
 備註 ND = Not detected 未檢測出
 Detection limit 偵測極限 = 0.006 ppm



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Test Conducted 測試內容 :

7. Sensory Evaluation 感觀分析

Test Standard: §64 LFGB L00.90-6.

參考 §64 LFGB L00.90-6。

Tested Item 測試項目	Result 結果 (Intensity scale 強度等級)			Limit 限值 (Intensity scale 強度等級)
	(1)	(2)	(3)	
Odour 氣味	0	0	0	2.5
Taste 味道	0	0	0	2.5

Intensity Scale 強度等級:

0 = No aberration, neutral 無明顯差異

1 = Very slight deterioration, barely perceivable 非常輕微的差異(很難確定)

2 = Slight deterioration 輕微的差異

3 = Marked deterioration 明顯的差異

4 = Strong deterioration 強烈的差異

Tested Components 測試部位 :

(1) Purple soft plastic container

(2) Green soft plastic container

(3) Brown soft plastic container



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Sample photo 樣品照片 :



End of Report 結束

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