

## 測試報告 Test Report

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龍興塑膠科技股份有限公司  
DRAGON SHING ROTOCASTING CO., LTD.  
彰化縣伸港鄉全興村全興路1之15號  
NO. 1-15 CHUAN SHING ROAD, SHEN KANG SHIANG, CHANG HUA HSIEN, 509 TAIWAN R. O. C.



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) : 龍興塑膠科技股份有限公司 (DRAGON SHING ROTOCASTING CO., LTD.)  
 樣品名稱(Sample Description) : 塑膠筆頭 (PLASTIC PEN NIB)  
 生產或供應廠商(Manufacturer/Vender) : 龍興塑膠科技股份有限公司 (DRAGON SHING ROTOCASTING CO., LTD.)  
 收件日期(Sample Receiving Date) : 2019/02/22  
 測試期間(Testing Period) : 2019/02/22 TO 2019/03/05

測試需求(Test Requested) : 請參閱總結。 / Please refer to the summary.

測試方法及結果 (Test Method & Results) : 請參閱下一頁 (Please refer to following pages).

總結(Summary)	指令2009/48 / EC及其理事會修正指令 (EU) 2017/738 - EN71-3 : 2013 + A3 : 2018 - 特定元素遷移。 / Directive 2009/48/EC and its amendment Council Directive (EU) 2017/738-EN71-3: 2013+A3: 2018 - Migration of certain elements.	通過/PASS
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Signed for and on behalf of  
SGS Taiwan Ltd.

Iris Huang  
Manager



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DRAGON SHING ROTOCASTING CO., LTD.

彰化縣伸港鄉全興村全興路1之15號

NO. 1-15 CHUAN SHING ROAD, SHEN KANG SHIANG, CHANG HUA HSIEN, 509 TAIWAN R. O. C.



### 測試結果(Test Results)

指令2009/48 / EC及其理事會修正指令 (EU) 2017/738-EN71-3 : 2013 + A3 : 2018 - 特定元素遷移. / Directive 2009/48/EC and its Amendment Council Directive (EU) 2017/738 - EN71-3: 2013 + A3: 2018 - Migration of certain elements.

第三類: 可刮取的玩具材料. / Category III: Scrapped-off toy material.

測試部位(PART NAME) No. 1 : 白色塑膠 (WHITE PLASTIC)

測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	MDL	結果 (Result)	限值 (Limit)
				No. 1	
溶出鋁 / Soluble Aluminum (Al)	mg/kg	參考 EN 71 Part 3:2013 + A3:2018, 以感應耦合電漿原子發射光譜儀檢測. / With reference to EN 71 Part 3:2013 + A3:2018. Analysis was performed by ICP-AES.	50	n. d.	70000
溶出銻 / Soluble Antimony (Sb)	mg/kg		10	n. d.	560
溶出砷 / Soluble Arsenic (As)	mg/kg		10	n. d.	47
溶出鋇 / Soluble Barium (Ba)	mg/kg		50	n. d.	18750
溶出硼 / Soluble Boron (B)	mg/kg		50	n. d.	15000
溶出鎘 / Soluble Cadmium (Cd)	mg/kg		5	n. d.	17
溶出鈷 / Soluble Cobalt (Co)	mg/kg		10	n. d.	130
溶出銅 / Soluble Copper (Cu)	mg/kg		50	n. d.	7700
溶出鉛 / Soluble Lead (Pb)	mg/kg		10	n. d.	23
溶出錳 / Soluble Manganese (Mn)	mg/kg		50	n. d.	15000
溶出汞 / Soluble Mercury (Hg)	mg/kg		10	n. d.	94
溶出鎳 / Soluble Nickel (Ni)	mg/kg		10	n. d.	930
溶出硒 / Soluble Selenium (Se)	mg/kg		10	n. d.	460
溶出鐳 / Soluble Strontium (Sr)	mg/kg		50	n. d.	56000
溶出錫 / Soluble Tin (Sn)	mg/kg		4.9	n. d.	180000
溶出鋅 / Soluble Zinc (Zn)	mg/kg		50	n. d.	46000
溶出鉻 / Soluble Chromium (Cr)	mg/kg	5	n. d.	-	
溶出三價鉻 / Soluble Chromium (III) (Cr (III))	mg/kg	參考 EN 71 Part 3:2013 + A3:2018, 以液相層析感應耦合電漿質譜儀檢測. / With reference to EN 71 Part 3:2013 + A3:2018. Analysis was performed by LC-ICP-MS.	5	n. d.	460
溶出六價鉻 / Soluble Chromium (VI) (Cr (VI))	mg/kg		0.18	n. d.	0.2

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DRAGON SHING ROTOCASTING CO., LTD.

彰化縣伸港鄉全興村全興路1之15號

NO. 1-15 CHUAN SHING ROAD, SHEN KANG SHIANG, CHANG HUA HSIEN, 509 TAIWAN R. O. C.



測試項目 (Test Items)	單位 (Unit)	測試方法 (Method)	MDL	結果 (Result)	限值 (Limit)
				No. 1	
甲基錫 / Methyl tin (MeT)	mg/kg	參考 EN 71 Part 3:2013 + A3:2018, 以氣相層析/質譜儀檢測. / With reference to EN 71 Part 3:2013 + A3:2018. Analysis was performed by GC/MS.	0.5	n. d.	-
二丙基錫 / Di-n-propyl tin (DProT)	mg/kg		0.5	n. d.	-
單丁基錫 / Butyl tin (BuT)	mg/kg		0.5	n. d.	-
二丁基錫 / Dibutyl Tin (DBT)	mg/kg		0.5	n. d.	-
三丁基錫 / Tributyl Tin (TBT)	mg/kg		0.5	n. d.	-
單辛基錫 / n-Octyl tin (MOT)	mg/kg		0.5	n. d.	-
四丁基錫 / Tetrabutyltin (TeBT)	mg/kg		0.5	n. d.	-
二苯基錫 / Diphenyltin (DphT)	mg/kg		0.5	n. d.	-
二辛基錫 / Di-n-octyl tin (DOT)	mg/kg		0.5	n. d.	-
三苯基錫 / Triphenyl Tin (TphT)	mg/kg		0.5	n. d.	-
溶出有機錫 / Soluble Organic Tin	mg/kg	-	n. d.	12	

### 備註(Note) :

1. mg/kg = ppm ; 0.1wt% = 1000ppm
2. MDL = Method Detection Limit (方法偵測極限值)
3. n. d. = Not Detected = below MDL (未檢出 / 低於MDL)
4. "-" = Not Regulated (無規格值)
5. 本測試係由化學實驗室進行分析(The analysis was conducted in SGS Taiwan Ltd. Chemical Laboratory-Taipei)

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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.)

### HY/2019/20071



\*\* 報告結尾(End of Report) \*\*

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