

# CENTRE OF TESTING SERVICE INTERNATIONAL

**OPERATE ACCORDING TO ISO/IEC 17025** 

# **TEST REPORT**

Test Report Number: CGZ3100126-00272-O

CTS (Guangzhou) Testing Service Technology Co., Ltd.

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The measurement results only apply to the submitted samples.
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3 Sample Reference Photo/參考圖片

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#### General Information/概況

## 1.1 Application Details/申請人資料

Name

: JAMPO Industrial Co., LTD : 燦博實業股份有限公司

公司名稱 Address

: No. 150, lane 1, Sec1, Chang rong Rd., Gueiren Township, Tainan

County 711 Taiwan

批址

: 臺灣臺南縣歸仁鄉長榮路一段一巷150號

Contact

: Potsan Weng : 翁博燦

聯絡人 Telephone

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: +886-6-2782997

Mobile telephone

手機 Email 電郵

: info@jambo.com.tw info@jambo.com.tw

## 1.2 Manufacturer & Buyer/生產商和買家

Manufacturer name

: JAMPO Industrial Co., LTD

生產商

: 燦博實業股份有限公司

Address

: No. 150, lane 1, Sec1, Chang rong Rd., Gueiren Township,

Tainan County 711 Taiwan

地址

: 臺灣臺南縣歸仁鄉長榮路一段一巷150號

Contact

: Potsan Weng

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Telephone 電話 Fax

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Mobile telephone

: /

手機 Email 電郵

info@jambo.com.tw : info@jambo.com.tw : Normal users / customers

Buyer name 買家

: 一般消費者





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#### 1.3 Description of the Test Item/測試樣品

Sample name

: 100% Acrylic solid surface sink

樣品名稱

: 壓克力實心人造石水槽

Model No.

: JB-450 / JB-230 / JB-880 / JB-430 / JB-780 / JB-460 : JB-450 / JB-230 / JB-880 / JB-430 / JB-780 / JB-460

樣品型號 Brand name

: JAMBO

商標

: JAMBO

Condition of sample(s)

: EFFECTIVE

樣品狀態

: 有效

#### 2 Test Results /測試結果

#### 2.1 General Information/概况

#### 2.1.1 Description of the Sample/樣品描述

Sample name

: 100% Acrylic solid surface sink

樣品名稱

: 壓克力實心人造石水槽

Model No.

JB-450 / JB-230 / JB-880 / JB-430 / JB-780 / JB-460 JB-450 / JB-230 / JB-880 / JB-430 / JB-780 / JB-460

樣品型號 Brand name

JAMBO

商標

: JAMBO

## 2.1.2 Sample Receiving Date/收樣日期

Jan. 26, 2010 2010年01月26日

#### 2.1.3 Testing Period/測試日期

Jan. 26, 2010 to Apr. 9, 2010 2010年01月26日至2010年04月09日

#### 2.1.4 Test Requested/測試要求

 As specified by applicant, to determine the Lead, Cadmium, Mercury, Hexavalent Chromium and PBBs & PBDEs content in the submitted sample in accordance with Directive 2002/95/EC (RoHS).

申請人指定根據 2002/95/EC (RoHS) 指令測試提交樣品的鉛、編、汞、六價鉻、多溴聯苯和多溴二苯醚的含量。

2) To determine the Phthalates Content for compliance with European Commission 2007/19/EC (2002/72/EC amendment) relating to plastic materials and articles intended to come into contact with foodstuffs.





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與食物接觸的塑料材料及物品是否符合2007/19/EC(2002/72/EC修訂指令)的磷苯二甲酸脂(塑化劑)含量測試。

3) To determine the Specific Migration of Phthalates for compliance with European Commission 2002/72/EC and its amendment 2007/19/EC relating to plastic materials and articles intended to come into contact with foodstuffs. 與食物接觸的塑料材料及物品是否符合2007/19/EC(2002/72/EC修訂指令)的磷苯二甲酸脂(塑化劑)特定遷移測試。

4) As specified by applicant, to determine the volatile organic compound content in the submitted sample.

申請人指定測試提交樣品中揮發性有機化合物的含量。

5) Antibacterial activity testing: Staphylococcus aureus(ATCC 6538), E.coli(ATCC 8739). 抗菌能力測試: 金黃色葡萄球菌(ATCC 6538), 大腸桿菌(ATCC 8739)

 Resistance to fungi testing: Aspergillus niger(ATCC9642), Aureobasidium Pullulans(ATCC15233), Penicillium pinophilum(ATCC11797), Chaetomium globosum(ATCC6205), Trichoderma virens(ATCC9645)

抗真菌能力測試: 黑曲霉菌 (ATCC9642), 出芽短梗霉菌 (ATCC15233), 嗜松青霉菌 (ATCC11797), 球毛殼菌 (ATCC6205), 綠色胶霉菌 (ATCC9645)

#### 2.1.5 Test Method /测試方法

1) RoHS test method /測試方法

Test Item(s) 測試項目	Test Method 测试方法
Lead (Pb) 鉛	US EPA3050B
Cadmium (Cd) 鎘	EN1122: 2001B
Mercury (Hg) 汞	US EPA3052
Chromium VI (Cr VI) 六價鉻	US EPA3060A 和 US EPA 7196A
PBBs 多溴聯苯	US EPA3540C
PBDEs 多溴二苯醚	US EPA3540C

- 2) Sample preparation in accordance with ASTM D3421, followed by analysis by GC/MS. 参考ASTM D3421方法處理樣品,然後用氣相色譜-質譜聯用裝置分析。
- 3) Sample preparation with reference to EN 13130-1: 2004 with selection of stimulant and condition, followed by analysis by GC/MS.
  参考標準EN 13130-1: 2004 選擇試液和處理條件對樣品進行處理,然後用氣相色譜-質譜聯用裝置分析。





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4) With reference to ISO 17226:2003, analysis was performend by LC. With reference to headspace-GC-FID Method. 參照ISO 17226:2003, 採用液相色譜法測定 採用頂空-GC-FID法。

5) ISO 22196:2007(E) Plastics-Measurement of Antibacterial Activity on Plastics Surfaces. ISO 22196:2007(E) 塑料製品表面抗菌能力評價方法。

6) ASTM G21-1996(Reapproved 2002) Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi.
ASTM G21-1996 (2002修訂版) 合成高分子材料抗真菌性的測定。

#### 2.2 Results/结果

#### 2.2.1 RoHS test result / RoHS 測試結果

Test Item(s)	Unit		Result 結果				
測試項目	單位		No.1	No.2	No.3	No.4	No.5
Lead (Pb) 鉛	mg/kg	1000	N.D.	N.D.	N.D.	N.D.	N.D.
Cadmium (Cd) 鎬	mg/kg	100	85	N.D.	N.D.	13	N.D.
Mercury (Hg) 汞	mg/kg	1000	N.D.	N.D.	N.D.	N.D.	N.D.
Chromium VI Chromium(CrVI) 六價鉻	mg/kg	1000	N.D.	N.D.	N.D.	N.D.	N.D.
Sum of PBBs(PBBs) 多溴聯苯總和	mg/kg	1000	N.D.	N.D.	N.D.	N.D.	N.D.
Monobromobiphenyl 一溴聯苯	mg/kg		N.D.	N.D.	N.D.	N.D.	N.D.
Dibromobiphenyl 二溴聯苯	mg/kg		N.D.	N.D.	N.D.	N.D.	N.D.
Tibromobiphenyl 三溴聯苯	mg/kg		N.D.	N.D.	N.D.	N.D.	N.D.
Tetrabromobiphenyl 四溴聯苯	mg/kg		N.D.	N.D.	N.D.	N.D.	N.D.
Pentabromobiphenyl 五溴聯苯	mg/kg		N.D.	N.D.	N.D.	N.D.	N.D.
Hexabromobiphenyl 六溴聯苯	mg/kg		N.D.	N.D.	N.D.	N.D.	N.D.
Heptabromobiphenyl 七溴聯苯	mg/kg		N.D.	N.D.	N.D.	N.D.	N.D.

(to be continued)

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Octabromobiphenyl 八溴聯苯	mg/kg		N.D.	N.D.	N.D.	N.D.	N.D.
Nonabromodiphenyl 九溴聯苯	mg/kg		N.D.	N.D.	N.D.	N.D.	N.D.
Decabromodiphenyl 十溴聯苯	mg/kg		N.D.	N.D.	N.D.	N.D.	N.D.
Sum of PBDEs(PBDEs) 多溴二苯醚總和	mg/kg	1000	N.D.	N.D.	N.D.	N.D.	N.D.
Monobromodiphenyl ether 一溴二苯醚	mg/kg		N.D.	N.D.	N.D.	N.D.	N.D.
Dibromodiphenyl ether 二溴二苯醚	mg/kg		N.D.	N.D.	N.D.	N.D.	N.D.
Tibromodiphenyl ether 三溴二苯醚	mg/kg		N.D.	N.D.	N.D.	N.D.	N.D.
Tetrabromodiphenyl ether 四溴二苯醚	mg/kg		N.D.	N.D.	N.D.	N.D.	N.D.
Pentabromodiphenyl ether 五溴二苯醚	mg/kg		N.D.	N.D.	N.D.	N.D.	N.D.
Hexabromodiphenyl ether 六溴二苯醚	mg/kg		N.D.	N.D.	N.D.	N.D.	N.D.
Heptabromodiphenyl ether 七溴二苯醚	mg/kg		N.D.	N.D.	N.D.	N.D.	N.D.
Octabromodiphenyl ether 八溴二苯醚	mg/kg		N.D.	N.D.	N.D.	N.D.	N.D.
Nonabromodiphenyl ether 九溴二苯醚	mg/kg		N.D.	N.D.	N.D.	N.D.	N.D.
Decabromodiphenyl ether 十溴二苯醚	mg/kg		N.D.	N.D.	N.D.	N.D.	N.D.

Note/註解

: 1. Specimens, which requested to determine Cadmium, Mercury and Lead content, have been dissolved completely.

樣品中要求測定的鎬、汞和鉛含量已完全溶解。

2. N.D. = not detected (less than MDL) N.D. = 未檢出(小於方法檢出限值)

3. N.A. = not applicable

N.A. = 不適用

4. 1 mg/kg=1 ppm=0.0001%=1 毫克/千克





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2.2.2 Phthalates Content in Plastic Samples/塑料樣品中磷苯二甲酸酯(塑化劑)測試

Test Items	CAS No. 美國化學文摘登	MDL (ma/ka)	Result 結果	Maximum Permissible Limit	
測試項目	記號	(mg/kg)	No.1	最大允許限值(mg/kg)	
Di-n-decyl Phthalate DNDP 磷苯二甲酸正辛正癸酯	84-77-5	30	N.D.	Absent 缺少	
n-decyl n-octyl Phthalate 磷苯二甲酸二癸酯 NDNOP	119-07-3	30	N.D.	Absent 缺少	
Di-n-octyl Phthalate DNOP 磷苯二甲酸二正辛酯	117-84-0	30	N.D.	Absent 缺少	
Di (2-ethylhexyl) Phthalate 磷苯二甲酸二(2-乙基己基) 酯 DEHP	117-81-7	30	98	1000	
Dibutyl Phthalate DBP 磷苯二甲酸二丁酯		30	N.D.	500	
Diisononyl Phthalate DINP 磷苯二甲酸二異壬酯	68515-48-0	100	N.D.	1000	
Diisodecyl Phthalate DIDP 磷苯二甲酸二異癸酯	26761-40-0	100	N.D.	1000	
Benzylbutyl Phthalate BBP 磷苯二甲酸苯基丁酯	85-68-7	30	N.D.	1000	
Diallyl Phthalate DAP 磷苯二甲酸二烯丙基酯	131-17-9	30	N.D.	Absent 缺少	

Note/註解

: 1. N.D. = not detected (less than MDL)

N.D. = 未檢出(小於方法檢出限值)

2. MDL = Method Detection Limit

MDL=方法檢出限值





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## 2.2.3 Specific Migration of Phthalates/磷苯二甲酸酯特定遷移測試

Simulant used: Deionized Water Test condition: 100 deg. C, 4 hours

所用模擬試液:蒸餾水

測試條件: 100攝氏度, 4小時

Test Items 測試項目	<b>CAS No.</b> 美國化學文 摘登記號	MDL (mg/kg)	Specific Migration 特定遷移量 No.1	Maximum Permissible Limit 最大允許限值 (mg/kg)	
Di-n-decyl Phthalate DNDP 磷苯二甲酸正辛正癸酯	84-77-5	0.2	N.D.	(Sum of three/三者	
n-decyl n-octyl Phthalate 磷苯二甲酸二癸酯 NDNOP	119-07-3	0.4	N.D.	之和)	
Di-n-octyl Phthalate DNOP 磷苯二甲酸二正辛酯	117-84-0	0.2	N.D.	5	
Di (2-ethylhexyl) Phthalate 磷苯二甲酸二(2-乙基己基) 酯 DEHP	117-81-7	0.25	N.D.	1.5	
Dibutyl Phthalate DBP 磷苯二甲酸二丁酯	84-74-2	0.05	N.D.	0.3	
Diisononyl Phthalate DINP 磷苯二甲酸二異壬酯	68515-48-0	1.5	N.D.	9	
Diisodecyl Phthalate DIDP 磷苯二甲酸二異癸酯	26761-40-0	1.5	N.D.	9	
Benzylbutyl Phthalate BBP 磷苯二甲酸苯基丁酯	85-68-7	3	N.D.	30	
Diallyl Phthalate DAP 磷苯二甲酸二烯丙基酯	131-17-9	0.01	N.D.	0.01	

Simulant used: 3% Acetic Acid Test condition: 100 deg. C, 4 hours

所用模擬試液: 3%醋酸

測試條件: 100攝氏度, 4小時

Test Items 測試項目	<b>CAS No.</b> 美國化學文 摘登記號	MDL (mg/kg)	Specific Migration 特定遷移量 No.1	Maximum Permissible Limit 最大允許限值 (mg/kg)
Di-n-decyl Phthalate DNDP 磷苯二甲酸正辛正癸酯	84-77-5	0.2	N.D.	(Sum of three/三者
n-decyl n-octyl Phthalate 磷苯二甲酸二癸酯 NDNOP	119-07-3	0.4	N.D.	之和)
Di-n-octyl Phthalate DNOP 磷苯二甲酸二正辛酯	117-84-0	0.2	N.D.	3





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Di (2-ethylhexyl) Phthalate 磷苯二甲酸二(2-乙基己基) 酯 DEHP	117-81-7	0.25	N.D.	1.5
Dibutyl Phthalate DBP 磷苯二甲酸二丁酯	84-74-2	0.05	N.D.	0.3
Diisononyl Phthalate DINP 磷苯二甲酸二異壬酯	68515-48-0	1.5	N.D.	9
Diisodecyl Phthalate DIDP 磷苯二甲酸二異癸酯	26761-40-0	1.5	N.D.	9
Benzylbutyl Phthalate BBP 磷苯二甲酸苯基丁酯	85-68-7	3	N.D.	30
Diallyl Phthalate DAP 磷苯二甲酸二烯丙基酯	131-17-9	0.01	N.D.	0.01

Simulant used: 95%ethanol

Test condition: 100 deg. C, 4 hours

所用模擬試液: 95%酒精 測試條件: 100攝氏度, 4小時

Test Items 測試項目	CAS No. 美國化學文 摘登記號	MDL (mg/kg)	Specific Migration 特定遷移量 No.1	Maximum Permissible Limit 最大允許限值 (mg/kg)	
Di-n-decyl Phthalate DNDP 磷苯二甲酸正辛正癸酯	84-77-5	0.2	N.D.	(Sum of three/三者	
n-decyl n-octyl Phthalate 磷苯二甲酸二癸酯 NDNOP	119-07-3	0.4	N.D.	之和)	
Di-n-octyl Phthalate DNOP 磷苯二甲酸二正辛酯	117-84-0	0.2	N.D.	3	
Di (2-ethylhexyl) Phthalate 磷苯二甲酸二(2-乙基己基) 酯 DEHP	117-81-7	0.25	N.D.	1.5	
Dibutyl Phthalate DBP 磷苯二甲酸二丁酯	84-74-2	0.05	N.D.	0.3	
Diisononyl Phthalate DINP 磷苯二甲酸二異壬酯	68515-48-0	1.5	N.D.	9	
Diisodecyl Phthalate DIDP 磷苯二甲酸二異癸酯	26761-40-0	1.5	N.D.	9	
Benzylbutyl Phthalate BBP 磷苯二甲酸苯基丁酯	85-68-7	3	N.D.	30	
Diallyl Phthalate DAP 磷苯二甲酸二烯丙基酯	131-17-9	0.01	N.D.	0.01	

Note/註解

: 1. N.D. = not detected (less than MDL)





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N.D. = 未檢出(小於方法檢出限值)

2. MDL = Method Detection Limit

MDL=方法检出限值

#### 2.2.4 VOC content /揮發性有機化合物的含量

Test Item(s)	Test Methods	MDL	Result/結果	
測試項目	測試方法	(mg/L)	No.1	
Formaldehyde 甲醛	With reference to ISO 17226:2008, analysis was		N.D.	
Acetaldehyde 乙醛	performend by LC 參照ISO 17226:2003, 採用液相色譜法測定	5	N.D.	
Toluene 甲苯			1.0	
Ethylbenzene 乙苯	headspace-GC-MS		N.D.	
Xylene 二甲苯	method 頂空-GC-FID 法	0.1	N.D.	
Styrene 苯乙烯			N.D.	
para-dichlorobenzene 對-二氯苯			N.D.	

## 2.2.5 ISO 22196:2007(E) Plastics—Measurement of Antibacterial Activity on Plastics Surfaces/ ISO 22196:2007(E) 塑料製品表面抗菌性能評價方法

Test sample: No.1 測試樣品: No.1

Test Method(s) 測試方法 ISO 22196:2009(E)	Test Microo 測試		Microor Count ( 菌液濃度	Percent Reduction		
	(A) (五人)	<b>本</b>	Zero Time 0小時	<b>24Hours</b> 24小時	減少率	
	ATCC 6538 : Staphylococcus Aureus	Test Sample 測試樣	200	1.3×10 <sup>3</sup>	00.200/	
	ATCC 6538: 金黄色葡萄球菌	Control Sample 控制樣	bl e 2.1×10 <sup>5</sup> 3.6×10 <sup>4</sup>	96.39%		
	ATCC 8739: E. coli ATCC 8739:	Test Sample 測試樣	-	2.6×10 <sup>3</sup>	98.27%	





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	大腸桿菌	Control Sample 控制樣	1.6×10 <sup>5</sup>	1.5×10 <sup>5</sup>	
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# 2.2.6 ASTM G21-1996(Reapproved 2002) Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi /ASTM G21-1996

(2002修訂版)合成高分子材料抗真菌性的測定

Test sample: No.1測試樣品: No.1

Test Culture	Concentration of spores(spores/mL)	Level (after 28 days)
試驗菌株		等級(28 天後)
Aspergillus niger(ATCC9642) 黑曲霉(ATCC9642) Aureobasidium Pullulans(ATCC15233) 出芽短梗霉菌(ATCC15233) Penicillium pinophilum(ATCC11797) 嗜松青霉菌(ATCC11797) Chaetomium Globosum(ATCC6205) 环毛殼(ATCC6205) Trichoderma virens(ATCC9645)	2.5×10 <sup>6</sup>	2Grade 2級

Note/註解

- According to ASTM G21-1996(Reapproved 2002) Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi, observed fungi growth rating on the specimens include: 0-None
  - 1-Traces of growth (less than 10%)
  - 2-Light growth(10 to 30%)
  - 3-Medium growth (30 to 60%)
  - 4-Heavy growth (60% to complete coverage)

依據 ASTM G21-1996 (2002修訂版)合成高分子材料抗真菌性的測

定,觀察測試樣真菌生長等級:

- 0-不生長
- 1-痕跡生長(<10%)
- 2-輕微生長(10-30%)
- 3-中度生長(30-60%)
- 4- 嚴重生長(60%-全面覆蓋)
- As specified by applicant, the Chinese report is translated from the English report. In the event of any discrepancy, the English version shall prevail.





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根據客戶的申請,中文報告翻譯自英文報告。有任何歧義,請以英 文報告為準。

Test Part Description

測試部位描述

No.1

: 100% Acrylic solid surface sink(orange)

: 壓克力實心人造石水槽(橙色)

No.2

100% Acrylic solid surface sink(light blue)

壓克力實心人造石水槽(淺藍色)

No.3

100% Acrylic solid surface sink(light green)

壓克力實心人造石水槽(淺綠色)

No.4

100% Acrylic solid surface sink(pink)

壓克力實心人造石水槽(粉色)

No.5

100% Acrylic solid surface sink(white)

壓克力實心人造石水槽(白色)

Written by/編制人: Inspected by/審核人:

nnie Approved by/批准人:



\*\*\* End of Report/報告結束\*\*\*





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3 Sample Reference Photo/参考圖片

