

TGIC SINCE 1964

TAIWANGLASS

台灣玻璃高硼硅（耐熱）玻璃容器簡介

台灣玻璃創業近 50 年，擁有世界先進設備與技術，生產平板、玻璃纖維、容食廚及高硼硅（耐熱）等各類玻璃產品，品質優良、經驗豐富，深受國內外客戶好評。

近年來塑膠製品新聞頻傳，塑化劑、雙酚 A 釋出等食品安全問題層出不窮，食品相關容器如保鮮盒、嬰兒奶瓶均陸續被玻璃製品取代。但目前嬰兒奶瓶市場上能夠提供同時具備高質量、一體成型等特質的高硼硅（耐熱）玻璃材質製品的廠商卻為數不多。

有感於市場的需求與期盼，台灣玻璃決心投入高硼硅（耐熱）玻璃容器的生產行列。在 2012 年斥資美金 1,200 萬元，引進歐洲先進設備，產製高質量的高硼硅（耐熱）玻璃容器，並在 2013 年 05 月正式投產，全廠通過 ISO9000/14000/22000 品管、環境及食品安全管理系統國際認證，奶瓶印刷品質亦符合歐盟 EN14350/71-3 規範，以提供消費者可安心使用之產品。

Introduction to TGI Heat-Resistant Glass Bottle

Taiwan Glass, a TWSE listed glass manufacturer dedicates itself in producing high quality soda lime glass baby feeding bottles for decades. To respond timely to the growth of the market, a brand new α 33 borosilicate glass line started operating in May, 2013.

We provide not only EN14350/71-3 certified decorated glass bottles, but a total solution to benefit your nursery business- nipples, caps, packaging are all available by our vendors and able to be assembled in-line. The products will then be stored in our AS/RS (Automated Storage and Retrieval System), to provide a more flexible logistic service. The operation is certified with ISO 9001, 14001 by SGS.

Please contact us directly by mailing cte@taiwanglass.com or dialing +886-2-27130333 ext.1295 to learn more about our excellent quality products and reputable high efficient service.



耐熱玻璃說明 Heat-Resistant Glass

1. 使用熱膨脹系數 α -33 之硼矽玻璃，可耐高溫 600°C
Made of α -33 borosilicate glass and able to sustain maximum temperature up to 600°C.
2. 急劇溫度變化下 (溫差 150°C) 也可安全使用。
Safe to use on sudden temperature change (max. 150°C temperature difference).

Generic Feeding Bottle 通用奶瓶



4oz 標口
39E00168R0

Capacity 168 ml
Weight 125 gr.
Height 110 m/m
Dia. 54 m/m



8oz 標口
39E00277R0

Capacity 277 ml
Weight 185 gr.
Height 174.9 m/m
Dia. 53.3 m/m



4oz 寬口四牙 (歐規)
39E00184W0

Capacity 184 ml
Weight 139 gr.
Height 91.1 m/m
Dia. 64.5 m/m



8oz 寬口四牙 (歐規)
39E00312W0

Capacity 312 ml
Weight 212 gr.
Height 141.5 m/m
Dia. 66.2 m/m



4oz 寬口雙牙 (日規)
39E00177X0

Capacity 177 ml
Weight 127 gr.
Height 84.1 m/m
Dia. 64.5 m/m



8oz 寬口雙牙 (日規)
39E00304X0

Capacity 304 ml
Weight 199 gr.
Height 134.5 m/m
Dia. 66.2 m/m



4oz 寬口高雙牙
39E00184H0

Capacity 184 ml
Weight 139 gr.
Height 91.1 m/m
Dia. 64.5 m/m



8oz 寬口高雙牙
39E00312H0

Capacity 312 ml
Weight 212 gr.
Height 141.5 m/m
Dia. 66.2 m/m

Customized Feeding Bottle 專用奶瓶 | 一般瓶型



39E00239I0

Capacity 239 ml
Weight 159 gr.
Height 108.6 m/m
Dia. 66.1 m/m



39E00336I0

Capacity 336 ml
Weight 219 gr.
Height 144.4 m/m
Dia. 66.7 m/m



39E00266B0

Capacity 266 ml
Weight 160 gr.
Height 104.8 m/m
Dia. 70 m/m



39E00382B0

Capacity 382 ml
Weight 213 gr.
Height 143.8 m/m
Dia. 70 m/m

Customized Feeding Bottle 專用奶瓶 | 一般瓶型



39E00100U0

Capacity 100 ml
 Weight 110 gr.
 Height 81 m/m
 Dia. 55.1 m/m



39E00156U0

Capacity 156 ml
 Weight 120 gr.
 Height 108.5 m/m
 Dia. 57.4 m/m



39E00293U0

Capacity 293 ml
 Weight 175 gr.
 Height 152m/m
 Dia. 65.8 m/m



39E00235B0

Capacity 235 ml
 Weight 145 gr.
 Height 97 m/m
 Dia. 68 m/m



39E00345B0

Capacity 345 ml
 Weight 195 gr.
 Height 133.3 m/m
 Dia. 69.8 m/m



39E00253M0

Capacity 253 ml
 Weight 160 gr.
 Height 115 m/m
 Dia. 66 m/m



39E00333M0

Capacity 332 ml
 Weight 200 gr.
 Height 147 m/m
 Dia. 67 m/m



39E00176U0

Capacity 176 ml
 Weight 130 gr.
 Height 87.15 m/m
 Dia. 64 m/m



39E00307U0

Capacity 307 ml
 Weight 194 gr.
 Height 123.8 m/m
 Dia. 71 m/m



39E00279B0

Capacity 279 ml
 Weight 145 gr.
 Height 98.2 m/m
 Dia. 72.7 m/m



39E00369B0

Capacity 369 ml
 Weight 195 gr.
 Height 130.5 m/m
 Dia. 71.5 m/m

Customized Feeding Bottle 專用奶瓶 | 特殊瓶型



39E00148I0

Capacity 148 ml
Weight 120 gr.
Height 97.2 m/m
Dia. 55.2 m/m



39E00277I0

Capacity 277 ml
Weight 180 gr.
Height 143.5 m/m
Dia. 65.4 m/m



39E00220L0

Capacity 220 ml
Weight 160 gr.
Height 103.4 m/m
Dia. 63 m/m



39E00295L0

Capacity 295 ml
Weight 220 gr.
Height 138.6 m/m
Dia. 63 m/m



39E00244B0

Capacity 244 ml
Weight 161 gr.
Height 98 m/m
Dia. 72.9 m/m



39E00342B0

Capacity 342 ml
Weight 206 gr.
Height 130.8 m/m
Dia. 74.8 m/m



39E00182W0

Capacity 187 ml
Weight 140 gr.
Height 95 m/m
Dia. 66 m/m



39E00325W0

Capacity 337 ml
Weight 211 gr.
Height 145 m/m
Dia. 71.2 m/m

Media Bottle 實驗室玻璃



100 玻璃
39F00134K0

Capacity 135 ml
Weight 145 gr.
Height 100 m/m
Dia. 56 m/m



250 玻璃
39F00302K0

Capacity 302 ml
Weight 230 gr.
Height 138 m/m
Dia. 70 m/m



500 玻璃
39F00600K0

Capacity 603 ml
Weight 360 gr.
Height 176 m/m
Dia. 86 m/m



1000 玻璃
39F01123K0

Capacity 1130 ml
Weight 570 gr.
Height 225 m/m
Dia. 101 m/m



2000 玻璃
39F01123K0

Capacity 2280 ml
Weight 995 gr.
Height 260 m/m
Dia. 135.6 m/m

Others 其他瓶型



500 水瓶
39Y00633X0

Capacity 633 ml
Weight 356 gr.
Height 206 m/m
Dia. 80 m/m



350 茶酒公杯
39Y00350X0

Capacity 340 ml
Weight 245 gr.
Height 110.6 m/m
Dia. 81.8 m/m



700 酒瓶
39B00705G0

Capacity 705 ml
Weight 550 gr.
Height 293.6 m/m
Dia. 73 m/m



750 酒瓶
39B00755G0

Capacity 755 ml
Weight 580 gr.
Height 302.4 m/m
Dia. 74.2 m/m

耐熱印刷說明 Screen Printing Capability

1. 可印多達5色印刷（依瓶型而定）。 Maximum up to 5 colors.
2. 使用耐高溫、耐刮·符合歐盟規範之色料。 Excellent endurance decoration (EN14350 certified).

Customized Printing 客製化印刷



台玻高硼硅（耐熱）奶瓶特色 | 耐高溫 X 耐熱衝擊 X 健康衛生

採用超耐熱實驗室級玻璃原料及設備生產

1. 耐高溫達 600°C，可承受冷熱急變溫差 150°C，耐熱強度為普通玻璃的三倍以上。
2. 不含有毒物質（鉛、銅、雙酚 A、鄰苯二甲酸鹽、聚氯乙烯等...），可高溫煮沸消毒不變形。

醫院信賴指定使用

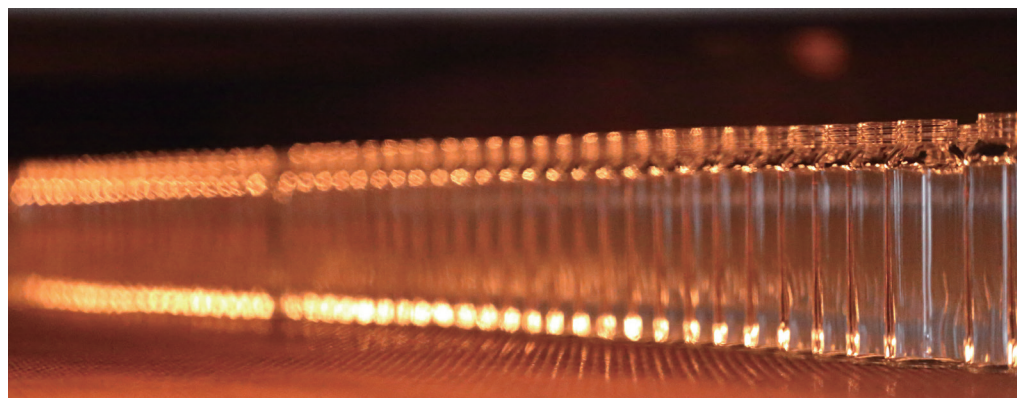
存放母乳保鮮度佳，同時具備高抗化學侵蝕及保有中性的材質之特性，為醫院育嬰室指定使用奶瓶。

具備高質量製造工藝

以德國、日本同等級的玻璃製造工藝，製作高硼硅（耐熱）奶瓶及實驗室玻璃，更可客製化客戶所需之產品。

台玻高硼硅（耐熱）奶瓶與晶鑽（管玻璃）奶瓶之比較

項次	項目	台玻高硼硅（耐熱）奶瓶	晶鑽（管玻璃）奶瓶
1	材質	Borosilicate	Borosilicate
2	膨脹係數	α 33	α 36~55
3	耐熱強度	1. 可承受瞬間溫差 150°C 以上 2. 玻璃瓶身耐熱溫度 -40°C~600°C	可承受瞬間溫差 120°C~150°C 以上
4	製程 & 產能	1. 全自動成型機 (Individual Section machine) 生產，一日可生產 5 萬支 2. 模具生產一體成型，尺寸精準，口部平整，與瓶蓋密合度佳	1. 半自動手工口部滾牙及封底 2. 口部平整性不佳（尤其是寬口奶瓶），螺牙尺寸不安定，易有漏液情形發生
5	印刷	1. 歐洲製造全自動奶瓶印刷機 2. 可印 5 色套色印刷 3. 印刷色料符合 EN 71-3 規範	印刷水平不一
6	安全性 & 強度	1. 標準硬質玻璃，瓶支厚度均勻，耐撞擊強度佳 2. 具耐酸鹼化學特性 3. 符合歐盟 EN 14350 及美國 FDA 品質規範標準	重量輕，厚度薄（尤其在瓶底），故強度較差
7	外觀 & 瓶型	以模具成型吹製，瓶型變異性佳（圓型、方型、橢圓型、多邊型等）	受限圓形、單調無變化。



Certificate 證書

AGR 膨脹係數報告



Defining Glass Quality Since 1927

T.M. Tsai
Taiwan Glass Industries
No 261, Sec 3, Nanking East Rd.
Taipei, 105 Taiwan

Revision: 0

Order #: A7792
PO #:
Entered: 06/02/2014
Completed: 07/02/2015

Page 1 of 1

Physical Properties

Description	Borosilicate Glass Bottle, Hsinchu City Taiwan
Sample ID	A7792
Coefficient of Thermal Expansion	$32.1 \times 10^{-7}/^{\circ}\text{C}$

Method Summary:

Coefficient of Thermal Expansion: ASTM E228-11 (0-300 °C)

References:

PFNB-301/02

Prepared By:


Neal T. Nichols
Manager

07/02/15
Date

Reviewed/Approved By:


Sarah J. Weiser
Chemist

7-2-15
Date



Test Report

No. : CT/2016/10287

Date : 2016/01/18

Page: 1 of 3

TAIWAN GLASS IND. CORP.
NO. 261, SEC. 3, NANKING E. RD., TAIPEI 105, TAIWAN



The following sample(s) was/were submitted and identified by/on behalf of the applicant as :

- Sample Submitted By : TAIWAN GLASS IND. CORP.
Sample Description : 8oz FEEDING BOTTLE (BOROSILICATE GLASS)
Sample Material : BOROSILICATE GLASS
Manufacturer/Vendor : TAIWAN GLASS IND. CORP.
Country of Origin : TAIWAN
Sample Receiving Date : 2016/01/11
Testing Period : 2016/01/11 TO 2016/01/18

- Test Requested : As specified by client, with reference to American Food and Drug Administration (FDA) Compliance Policy Guides CPG Sec. 545.400 and CPG Sec. 545.450, selected parts on the submitted sample(s) of Leachable Lead and Cadmium content from pottery (ceramic).
Test Result(s) : Please refer to next page(s).
Summary : Based upon the performed tests on submitted samples, the test results of Leachable Cadmium and Leachable Lead comply with the limits of requirements of the American Food and Drug Administration (FDA), Compliance Policy Guide CPG Sec. 545.400 and CPG Sec. 545.450.

George Fong, Supervisor
Signed for and on behalf of
SGS TAIWAN LTD.
Chemical Laboratory - Taipei

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Test Report

No. : CT/2016/10287

Date : 2016/01/18

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TAIWAN GLASS IND. CORP.
NO. 261, SEC. 3, NANKING E. RD., TAIPEI 105, TAIWAN



Test Result(s)

PART NAME No.1 : INTERNAL PART OF TRANSPARENT GLASS

PASS

Test Item (s)	Unit	Extract Volume (ml)	Method	MDL	Result	Limit
					No.1	
Lead	mg/L	310	With reference to AOAC 18th Ed. (2005) Section 973.32. Analysis was performed by ICP-AES.	0.03	n.d.	2.0
	mg/L			0.03	n.d.	2.0
	mg/L			0.03	n.d.	2.0
	mg/L			0.03	n.d.	2.0
	mg/L			0.03	n.d.	2.0
Cadmium	mg/L			0.003	n.d.	0.50
	mg/L			0.003	n.d.	0.50
	mg/L			0.003	n.d.	0.50
	mg/L			0.003	n.d.	0.50
	mg/L			0.003	n.d.	0.50

Note:

1. mg/L = ppm
2. n.d. = Not Detected
3. MDL = Method Detection Limit

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TEST REPORT

Mechanical & Hardgoods Laboratory

Report No. : HJ10008/2016

Page : 1 of 3

Date : JAN. 21, 2016

TAIWAN GLASS IND.CORP.

NO.261, SEC.3, NANKING E.RD., TAIPEI, 105, TAIWAN

The following merchandise was submitted and identified by the applicant as:

Product Description: 8oz Feeding Bottle
Manufacturer/Vendor: TAIWAN GLASS IND.CORP.
Country of Origin: TAIWAN
Additional information: BOROSILICATE GLASS

We have tested the submitted sample(s) as requested and the following results were obtained:

Test Requested: For compliance with BS EN 14350-1:2004 Child use and care articles – Drinking equipment – Part 1 : General and mechanical requirements and tests (Excluding clause 7 and 8).

Test Results: -- See following sheets --

Date of Receipt: Jan. 13, 2016

Testing Period: Jan. 13, 2016 ~ Jan. 21, 2016

Conclusion : The submitted sample(s) **complies with** BS EN 14350-1:2004 Child use and care articles – Drinking equipment – Part 1: General and mechanical requirements and tests (Excluding clause 7 and 8).

Signed for and on behalf of
SGS Taiwan Ltd.

Iris Huang
Asst. Manager



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SGS Taiwan Ltd.
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TEST REPORT

Mechanical & Hardgoods Laboratory

Report No. : HJ10008/2016

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Test Results:

1. BS EN 14350-1:2004 Child use and care articles – Drinking equipment – Part 1: General and mechanical requirements and tests.

Clause	Results
5 Requirements	
5.1 General	
5.2 Visual and tactile examination	Pass
5.3 Small parts	Pass
5.4 Volume	
5.4.1 Volumetric labeling	Pass
5.4.2 Volumetric accuracy	Pass
5.5 Resistance to tearing	N/A
5.6 Additional requirements for re-usable products	
5.6.1 Resistance to boiling water	Pass
5.6.2 Print adhesion of markings and decorations	Pass
5.6.3 Thermal shock	Pass
5.7 Additional requirement for sealing discs	N/A
5.8 Requirements for matched components	
5.8.1 Includes protrusions	N/A
5.8.2 Includes straws	N/A
5.9 Requirements for protrusions	N/A
5.10 Requirements for straws	N/A
7 Consumer packing	Excluded
8 Product information	Excluded

Note: N/A : Not Applicable.

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TEST REPORT

Mechanical & Hardgoods Laboratory

Report No. : HJ10007/2016

Page : 1 of 2

Date : JAN. 21, 2016

TAIWAN GLASS IND.CORP.
NO.261, SEC.3, NANKING E.RD., TAIPEI, 105, TAIWAN

The following merchandise was submitted and identified by the applicant as:

- Product Description: 8oz Feeding Bottle
- Manufacturer/Vendor: TAIWAN GLASS IND.CORP.
- Country of Origin: TAIWAN
- Additional information: BOROSILICATE GLASS

We have tested the submitted sample(s) as requested and the following results were obtained:



Test Requested: As per client's request, to determine Migration of certain elements with reference to clause 4.4 of BS EN 14350-2:2004 Child use and care articles – Drinking equipment – Part 2: Chemical requirements and tests.

Test Results: -- See following sheets --

Date of Receipt: Jan. 13, 2016

Testing Period: Jan. 13, 2016 ~ Jan. 21, 2016

Signed for and on behalf of
SGS Taiwan Ltd.

Iris Huang
Asst. Manager

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TEST REPORT

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Test Results:

Migration of certain elements

Element	Unit	MDL	Result	Limit
Soluble Antimony (Sb)	mg/kg	5	n.d.	15
Soluble Arsenic (As)	mg/kg	2.5	n.d.	10
Soluble Barium (Ba)	mg/kg	10	n.d.	100
Soluble Cadmium (Cd)	mg/kg	5	n.d.	20
Soluble Chromium (Cr)	mg/kg	5	n.d.	10
Soluble Lead (Pb)	mg/kg	5	n.d.	25
Soluble Mercury (Hg)	mg/kg	5	n.d.	10
Soluble Selenium (Se)	mg/kg	5	n.d.	100

Sample Description:

- 1. Composite of transparent glass and white printing

Note :

- 1. mg/kg = ppm
- 2. n.d. = Not Detected
- 3. MDL = Method Detection Limit
- 4. Composite test has been performed as per the special request of applicant.
- 5. The chemical analysis tests were conducted in SGS TW Ltd. Chemical lab – Taipei.

--- Picture(s) ---



Appearance of the sample

--- End of Report ---

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