



PROJECT		REF		REV	ITEM CODE	
LOCATION		DATE			PAGE	

**SANITARY WARE SPECIFICATION SHEET**

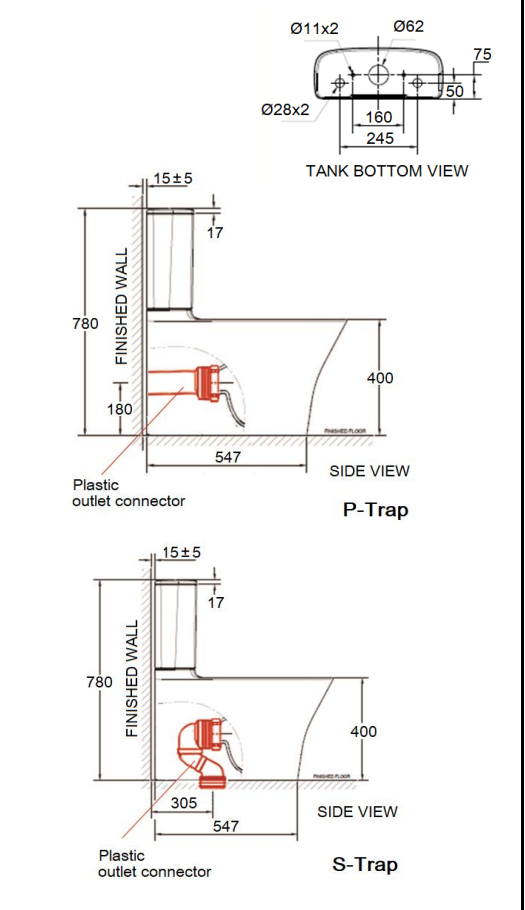
Item Descriptions	American Standard (Thailand) "Signature" <b>Double Vortex &amp; Hygiene Rim</b> close coupled universal trap watercloset with "CrystaSleek" soft closing seat & cover; Aqua Ceramic & ComfortClean Technology against stain, bacteria and germs; tested on BS3402:1969, MOD ISO 22196 & JIS Z 2801:2010/A1:2012; test report J28268, IMSL 2015/11/002.1B & 7191260844-CHM21-01-RC; nominated flow rate <b>3/4.5 LPF</b> in <b>WELS Grade 1</b> ; Registration No. WC 22-0143
Roughing in	P-trap: 190 mm S-trap: 305 mm
Dimensions	L699 x W406 x H780 mm
Model	TF2622SC-0
Material/Colour	Vitreous China
Manufacturer	American Standard (Thailand)
Source	Acme Sanitary Ware Co. Ltd Mr. Eric Wong/ Mr. Wilson Hung
Contact Tel/Fax	(852) 2388-7171 / (852) 2710-8012
E-mail	acme@acmesanitary.com.hk
Website	www.acmesanitary.com.hk



**KEY SPECIFICATIONS**

- Installation Type: Floor Mounted
- Flushing System: Double Vortex
- Flushing Platform: Washdown
- Flushing Type: Dual Flush
- Flushing Volume: 3/4.5 litre per flush
- Trapway Design: Fully Skirted
- Bowl Shape: Elongated
- Water Pressure, Dynamic (MPa): 0 Megapascal
- Water Pressure, Static (MPa): 0.14-0.55 Megapascal

HYGIENE RIM + DOUBLE VORTEX  
Maximum Flushing, Minimum Water Usage



Note: New Code : CL26225-6DACTCB

\* All information of the above is for the reference only. No prior notice is made if any changes.



自願參與用水效益標籤計劃 - 水廁  
Voluntary Water Efficiency Labelling Scheme - Water Closets



茲證明  
This is to certify that

(2622SC-WT-0 = TF2622SC-0)

將下列水廁在本計劃內註冊：

has registered the following water closet under this scheme :

牌 子 / Brand	:	American Standard + INAX
型 號 / Model	:	2622SC-WT-0 + PC-A2420
種 類 / Category	:	Close-coupled Suite
原 產 地 / Country or Region Origin	:	Thailand (WC Pan & Cistern) China (Flushing Valve)

在用水效益標籤上展示的標誌 <i>Symbolic Presentation on the Water Efficiency Label</i>	:	滴水點 <i>Water droplet(s)</i>
用水效益級別 <i>Water Efficiency Grade</i>	:	1
全沖水量 <i>Water Flush Volume (Full)</i>	:	4.5 公升/沖廁 <i>litres/flush</i>
低沖水量 <i>Water Flush Volume (Reduced)</i>	:	3.0 公升/沖廁 <i>litres/flush</i>

簽發日期:  
Date of Issue: 11 November 2022



水務署署長(林麗恒代行)  
for Director of Water Supplies

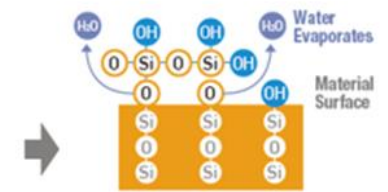
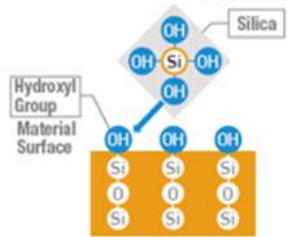
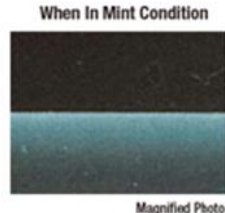
+ 上述水廁具額外節水功能，即：重用洗盥水作沖廁用途。  
The above water closet is equipped with additional water saving feature, that is: re-use the water collected from wash basin for flushing purpose.

# Double Vortex Flushing



**DOUBLE VORTEX**  
**MAXIMUM FLUSHING PERFORMANCE, MINIMUM WATER USAGE**

The design of the bowl propels the water forward and creates a strong flushing momentum.



**RIMLESS**  
**HYGIENIC AND EASY TO CLEAN**

Double Vortex is a rimless flushing system that effectively cleans the entire bowl interior, preventing dirt and deposits from building up. This rimless design makes it easy to clean as no dirt can accumulate over time.



All water flows out from the top of the bowl, cleaning the inner surface of the bowl.



## HYGIENE RIM

Available in  
 | Compact Cadie WH |  
 | Cygnet CCBTW | Cygnet Raised Height CCBTW |  
 | Heron Square CCBTW | Kastello Square WH |  
 | Signature CCBTW, WH, BTW |



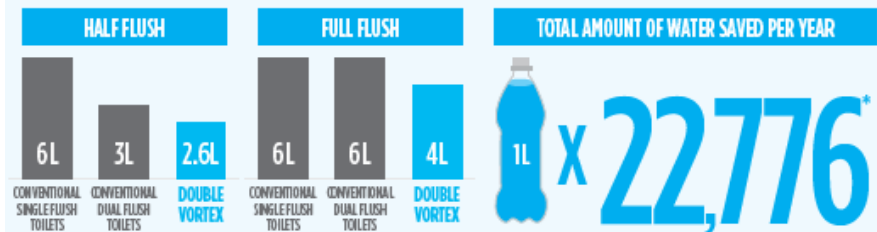


**WATER-SAVING**

USES ONLY 2.6L FOR HALF FLUSH AND 4L FOR FULL FLUSH

Apart from boasting an efficient flushing system, Double Vortex uses 2.6 litres of water for half flush and 4 litres for full flush. This equates to approximately 22,776 litres of water saved in a year for a family of 4.

**COMPARISON IN WATER SAVINGS BETWEEN CONVENTIONAL AND DOUBLE VORTEX FLUSHING SYSTEMS**



Calculation criterion is as follows. Average family number: four people. Average usage number of times: five times/per person per day (full-flush: one time, half-flush: four times)

\* Water savings is based on conventional Single Flush Toilets versus Double Vortex



**DUAL FLUSH**

Choice between a half flush and a full flush for liquids or solids and while still offering superior flushing performance.



**ANTI-STAIN TECHNOLOGY**



**AQUA CERAMIC**



**AQUA CERAMIC**

Less Dirt Stains. Less Water Stains.

AQUACERAMIC – prevent scratch marks, marks from waste, water scale stains and the build-up of bacteria.

**100 Years of Clean**



**AQUA CERAMIC**



Water scale stains



Marks from Waste



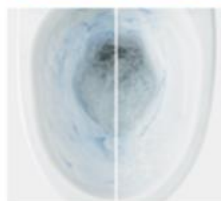
**AQUA CERAMIC**

Dirt is applied to the surface



Conventional ceramic

Surface undergoes flushing



Conventional ceramic

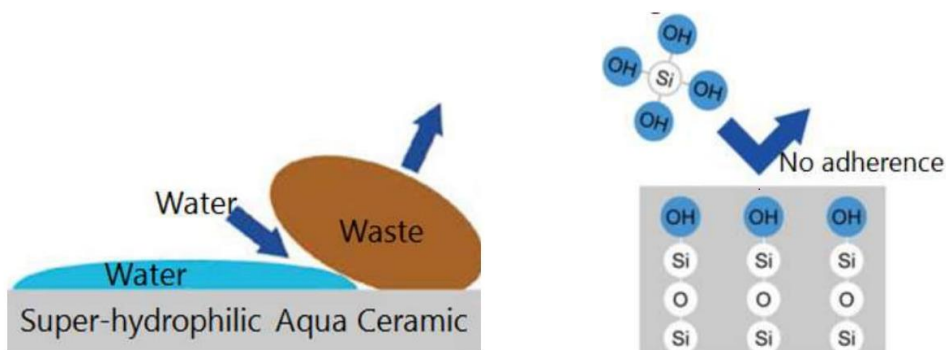
After flushing



Conventional ceramic



**AQUA CERAMIC**





## Aqua Ceramic

Super hydrophilic technology prevents dirt and stains from sticking to ceramic surfaces.



### AQUA CERAMIC

Super hydrophilic technology prevents dirt and dark ring stains from sticking to ceramic surface.



GOOD DESIGN  
AWARD 2016

## Aqua Ceramic Anti-Stain Technology

Less Dirt Stains. Less Water Stains. Easy to Clean.

Winner of Good Design Gold Award in 2016, Aqua Ceramic is a revolutionary technology that allows water to penetrate beneath any waste that may have attached to the ceramic, and easily lift it with just the power of water alone.

LIXIL

100年  
クリーン

AQUA  
CERAMIC

A revolutionary invention that ensures pristine and shiny condition -just like brand new- for the next 100 years.



## ComfortClean

Effectively kills E.Coli bacteria according to tests done with the Industrial Microbiological Service Ltd (IMSL).



### COMFORTCLEAN

Effectively kills E. Coli bacteria according to tests done with IMSL.

ComfortClean Antibacterial Glaze

China Glaze

Ceramic Ware



## ComfortClean Antibacterial Technology

Long-lasting Protection Against Bacteria and Germs.

American Standard ComfortClean technology: A revolutionary ceramic glaze with zinc oxide that effectively kills E. coli bacteria inside the toilet bowl for the long term and beyond, as proven in tests conducted by Industrial Microbiological Services Limited (IMSL).



ComfortClean Antibacterial Glaze  
is fired into the ceramic at more than 1000°C, ensuring long-lasting effectiveness.



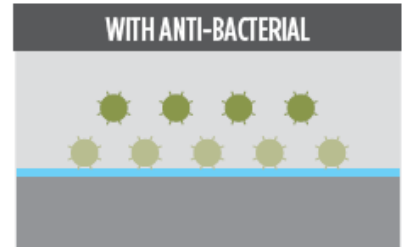
## ANTI-BACTERIAL FINISH

### TOTAL HYGIENE PROTECTION

American Standard's anti-bacterial finish covers all essential touch points, including the push button, seat and cover to provide an ultimate hygienic environment.



Over time, bacteria breeds on a conventional toilet's surface.



With Anti-bacterial finish, it effectively inhibits the growth of bacteria.



American Standard is the first in the industry to meet the \*Japan Industrial Standard (JIS Z 2801:2010) for this anti-bacterial technology on the push button. This technology is also applied on the seat and cover to provide a more hygienic environment.

\*Japan Industrial Standard (JIS Z 2801:2010) is the standard established by Japan Industrial Standard to test for anti-bacterial activity and efficacy.

Antimicrobial test result example (24 hours later)



The anti-bacterial innovation is applied as a glaze on ceramic wares, and is certified by the Industrial Microbiological Service Ltd (IMSL) in UK. The anti-bacterial feature cannot be removed even by household detergents, providing a lifetime of hygiene protection.

### Good Design Award 2014

American Standard wins 2014 Good Design Award for its Acacia Evolution basin mixer.



**GOOD DESIGN AWARD 2014**

# LIXIL

Link to Good Living

### About LIXIL

LIXIL is the most comprehensive and connected global company in the housing and building industry, delivering human-centric innovation that enhances people's living spaces – we call this Living Technology.


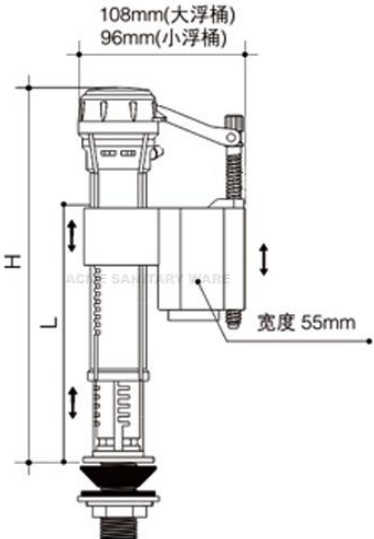
Delivering core strengths in water, housing, building and kitchen technologies, our brand portfolio businesses including LIXIL, INAX, GROHE, American Standard Brands and Permasteelisa are leaders in the industries and regions in which they operate, bringing better living solutions to the world today and for future generations.





PROJECT		REF		REV	ITEM CODE	
LOCATION		DATE			PAGE	

**SANITARY WARE SPECIFICATION SHEET**

Item Descriptions	American Standard (PRC) 5/8" Plastic float operated inlet valve	Illustration/ Drawing
Model	PC-A1260	
Material	Plastic	
Manufacturer	American Standard (PRC)	
Supplier	Acme Sanitary Ware Co. Ltd Mr. Eric Wong/ Mr. Wilson Hung	
Contact Tel/Fax	(852) 2388-7171 / (852) 2710-8012	
E-mail	acme@acmesanitary.com.hk	
Website	www.acmesanitary.com.hk	
		

NOTE: The color of the

\* All information of the above is for the reference only. No prior notice is made if any changes.



水務署  
Water Supplies Department

總部 Headquarters



告士打道七號入境事務大樓 48 樓  
7 Gloucester Road, Immigration Tower, 7 Gloucester Road, Wan Chai, Hong Kong

本署檔號  
Our ref. : 3321/2022 T/J(1111/2022)  
來函檔號  
Your ref. :

電話  
Tel. :  
傳真  
Fax : 2824 0578

23 December 2022



**Approval of “AMERICAN STANDARD” Float Operated Valve  
(General Acceptance No. C20221163F)**

Your letters ref. WRC/2780 and C-WSD/0977 dated 23 September 2022 and 29 November 2022 respectively refer.

Having considered the test report ref. J27711 issued on 13 May 2022 by Nutek Systems (HK) Limited, this Authority accepts that the fitting described below complies with, and its use when correctly installed does not contravene, the Waterworks Ordinance and Regulations.

**Name of Manufacturer:** Xiamen R&T Plumbing Technology Co Ltd  
**Country of Origin:** the Mainland of China  
**Brand:** American Standard  
**Details of Fitting:** 5/8" Plastic float operated valve  
**Model:** PC-A1260  
**Body Markings:** Nil  
**Expiry Date:** 26 April 2027





**Proviso:** As the fitting has not been tested for use in contact with water intended for human consumption, the fitting can only be used in flushing water plumbing systems.

This Authority hereby permits the use of the above fitting in flushing water plumbing systems subject to full adherence to Waterworks installation requirements. In particular, you are required to draw your customers' attention to the following requirement-

"The flushing volume of the flushing valve should be adjusted to suit the design of the toilet bowl so that wastes can be cleared effectively by a single flush."

"The fitting should be used within the range of working pressures specified by the manufacturer." AND

"The installed fitting should not result in backflow of water that will contaminate the flushing water supply."

A condition of this acceptance is that the fitting to be installed shall be replicas of the sample as certified by the testing agent mentioned above and without modifications. This acceptance may be withdrawn at any time if the standard of the fitting installed fails to meet that of the approved sample or if the fitting is found to be unsuitable for use in flushing water plumbing systems.

For the use of the fitting in any project, the General Acceptance Number of this letter must be quoted as a means of identification of acceptance of the fitting by this Authority.

Should you have any enquiries, please contact our Engineer Ms Winnie LO at tel. no. 3583 4086.

Yours faithfully,



(YAU Hau Yin)

for Director of Water Supplies

Encl.

c.c. WSD 3321/1/82 ] - without catalogue  
ME/MC ] - with soft copy only


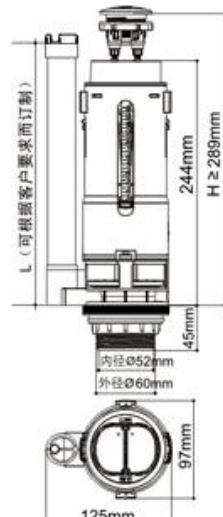


PROJECT		REF		REV	ITEM CODE	
LOCATION		DATE			PAGE	



## SANITARY WARE SPECIFICATION SHEET








Item Descriptions	R&T (PRC) Dual flush WC outlet valve with an ABS body
Model	A2420
Material	ABS
Manufacturer	Xiamen R&T Plumbing Technology Co. Ltd.
Supplier	Acme Sanitary Ware Co. Ltd Mr. Eric Wong/ Mr. Wilson Hung
Contact Tel/Fax	(852) 2388-7171 / (852) 2710-8012
E-mail	acme@acmesanitary.com.hk
Website	www.acmesanitary.com.hk

Illustration/ Drawing

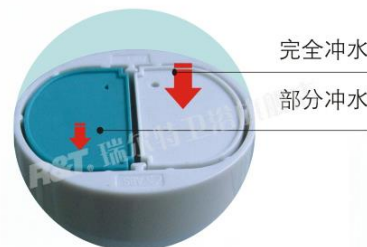



A2420 双排排水阀	
排水口径	2"
适用水箱高度	289 – 389mm
排水流量	半排 2.7–3.9L/S
	全排 2.4–2.6L/S
剩余水位范围	半排 78–170mm
	全排 40–60mm
适配坐便器类型	分体、连体
溢水管	高度可订制, 可选配可调






细节展示



完全冲水  
部分冲水




可选配可调节溢水管, 高度范围212mm–347mm



半排浮桶

按住卡片, 半排浮桶可在1–11.5刻度间上下调节, 半排浮桶由下往上调节时, 半排排水量由大变小。



全排调节片可在1–5刻度间上下调节, 调节片由下向上调节时, 全排排水量由大变小。

全排调节片

\* All information of the above is for the reference only. No prior notice is made if any changes.



水務署  
Water Supplies Department

總部 Headquarters

七打道七號入境事務大樓 48 樓  
7 Gloucester Road, Gloucester Tower, 7 Gloucester Road, Wan Chai, Hong Kong



本署檔號  
Our ref.  
來函檔號  
Your ref.

WSP/2022 T/J(596/2022)

電話  
Tel. :  
傳真  
Fax : 2824 0578

15 June 2022



**Approval of “R&T” Flush Valve  
(General Acceptance No. B20220013F)**

Your letter dated 13 May 2022 refers.

It is noted that the fitting described below has been accepted by the United Kingdom Water Regulations Advisory Scheme (WRAS) to have complied with the requirements of the United Kingdom Water Supply (Water Fitting) Regulations / Scottish Water Byelaws when correctly installed. This Authority accepts that the fitting described below based on the WRAS certificate complies with, and its use when correctly installed does not contravene, the Waterworks Ordinance and Regulations.

- Name of Manufacturer:** Xiamen R&T Plumbing Technology Co Ltd
- Country of Origin:** the Mainland of China
- Brand:** R&T
- Details of Fitting:** 2" Plastic dual flush valve
- Model:** A2420



**Body Markings:** RT and A2420 (model) moulded into body

**WRAS Approval Number:** 2111046

**Installation Requirements:** R001, R571  
(Appendix A of WRAS approval letter refers)

**Expiry Date:** 30 November 2026

**Proviso:** As the fitting has not been tested for use in contact with water intended for human consumption, the fitting can only be used in flushing water plumbing systems.

In view of the acceptance by WRAS, this Authority has no objection to the use of the said fitting in flushing water plumbing systems subject to full adherence to Waterworks installation requirements. In particular, you are required to draw your customers' attention to the following requirements –

“Installation shall comply with the ‘Installation Requirements & Notes’ of the WRAS’s approval letter concerned.”

“The flushing volume of the flushing valve should be adjusted to suit the design of the toilet bowl so that wastes can be cleared effectively by a single flush.”

“The fitting should be used within the range of working pressures specified by the manufacturer.” AND

“The installed fitting should not result in backflow of water that will contaminate the flushing water supply.”

A condition of this acceptance is that the fitting to be installed should be replicas of the sample certified by WRAS and no modification should be made to the fitting. This acceptance may be withdrawn at any time if the standard of the fitting installed fails to meet that of the approved sample or if the fitting is found to be unsuitable for use in flushing water plumbing systems.

For the use of the fitting in any project, the General Acceptance Number of this letter must be quoted as a means of identification of acceptance of the fitting by this Authority.

Should you have any enquiries, please contact our Engineer Ms Winnie LO at tel. no. 3583 4086.

Yours faithfully,



(YAU Hau Yin)

for Director of Water Supplies

Encl.

c.c. WSD 3321/1/82 ] - without catalogue  
ME/MC ] - with soft copy only



I certify this to be a true copy of the original document.

Signed: Wong Yee Ling  
Date: 2022-10-28

## Test Report

**Test**  
Title: Testing of WC Pan  
Method: BS 3402: 1969  
Report No.: J 28268  
Completion: 30 Sep., 2022 to 11 Oct., 2022

**Applicant** (Information provided by client)  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

**Sample** (Information provided by client)  
Description: Close Couple Water Closet

Brand: American Standard  
Model: 26225C-WT-0;  
CL26225-6DAHKPT

Body Marking: **American Standard**

Manufacturer: LIXIL (Thailand) Public Company Limited  
Origin: Thailand

### Approved Signatory

Signature: Terry Lam  
Name (title): Lam Kwai Wah, Terry (Operations Manager)  
Date: 27 Oct., 2022

Nutek Systems is a testing agency, accepted by the Water Supplies Department, for testing water supply fittings.



I certify this to be a true copy of the original document.

Signed: Wong Yee Ling  
Date: 2022-10-28

REPORT NO.: J 28268

## Summary

Test	Remark
1 Visual Examination	C
2 Water Absorption	C
3 Crazeing	C
4 Chemical Resistance Test	C
5 Resistance to Staining and Burning	C

## Results (apply only to samples tested)

### 1 Visual Examination BS 3402: 1969 Cl. 5.1, 5.4 & Table 2

Location	Blemish or defect	Maximum permitted	Remark
General	Wavy finish	None on all visible surfaces	C
	Warpage	Not more than 6mm	C
	Discoloration	None on all visible surfaces	C
Flushing surface and horizontal face of rims of WC pans bidets and urinals	Spots, blister and pinholes	A total of not over three; no grouping; for coloured appliances, blister and pinhole limited to one.	C
	Bubbles and specks	Not over two in one pottery square; a total of not over four	C
	Polishing marks	One only; none permitted for coloured fixtures	C
Visible surfaces other than above	Spots, blisters and pinholes	A total of not over five; no grouping; for coloured appliances, no blisters are permitted and pinholes are limited to a total of two	C
	Bubbles and specks	Not over three in one pottery square; a total of not over ten	C
Overall result			C

### 2 Water Absorption BS 3402: 1969 Cl. 6

ID	Weight (g)		Absorption (%)	Required	Remark
	Before Test	After Test			
Sample 1	132.0	132.2	0.15		C
Sample 2	119.2	119.5	0.25	0.75% max.	C
Sample 3	127.4	127.5	0.08		C
Average			0.16	0.50% max.	C
Overall result					C

**3 Crazing**

BS 3402: 1969 Cl. 7

ID	Variable	Unit	Measured	Required	Remark
1	Saturated steam	MN/m <sup>2</sup>	0.34	0.33 - 0.35	C
	Duration	h	10	10	C
	Sample 1	---	No	No	C
	Sample 2	---	No		C
Sample 3	---	No	C		
Overall result					C

**4 Chemical Resistance Test**

BS 3402: 1969 Cl. 8

**Table 4 — Chemical solutions**

Name of Chemical	Strength of solution	Time	Temperature
	%	hours	°C
Acetic acid	10	16	100
Citric acid	10	16	100
Detergent (Note 1)	(Note 1)	48	60
Hydrochloric acid	(Note 2)	48	15 to 23
Sodium hydroxide	5	0.5	60
Sodium stearate	0.15	48	60
Sulphuric acid	3	16	100

NOTE 1 This consists of an aqueous solution containing 0.04 % (w/vol) of a condensation product of nonylphenol with 8-10 molecules of ethylene oxide. A suitable solution which contains 0.15% (wt/vol) of the product is obtainable commercially under the trade name "Lissapol N".

NOTE 2 This solution consists of equal volumes of water and of hydrochloric acid of specific gravity 1.18.

ID	Solution	Time (h)	Temperature (°C)	Measured	Required	Remark
1	Acetic acid	16	100	No Loss	No loss of reflectivity on glaze	C
	Citric acid	16	100	No Loss		C
	Detergent	48	60	No Loss		C
	Hydrochloric acid	48	20	No Loss		C
	Sodium hydroxide	0.5	60	No Loss		C
	Sodium stearate	48	60	No Loss		C
	Sulphuric acid	16	100	No Loss		C
Overall result						C

**5 Resistance to Staining and Burning**

BS 3402: 1969 Cl. 9

ID	Variable	Unit	Measured	Required	Remark
1	Methylene blue	---	No Stain	No stain remains	C
	Sodium hypochlorite	---	No Stain		C
	Hydrogen peroxide	---	No Stain		C
	Amyl acetate	---	No Stain		C
	Iodine in ethanol	---	No Stain		C
2	Lighted cigarette	---	No Stain	C	
Overall result					C

Figure 1 - Sample



Figure 2 - Body Marking





I certify this to be a true copy of the original document.

Signed: Wong Yee Ling  
Date: 2022-10-28

REPORT NO.: J 23268

### General Note(s)

#### Definitions:

- C - conformance
- N - no requirement
- NC - non-conformance
- R - remainder

#### Organizations:

- WSD - Water Supplies Department (of Hong Kong)
- WHO - World Health Organization

- End of report -

# IMSL

INDUSTRIAL MICROBIOLOGICAL SERVICES LTD

### CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 1029047.1B

### CUSTOMER

CUSTOMER REF.

### SAMPLE DETAILS

DATE RECEIVED 14-Dec-15

Ceramic Tile

**METHOD: (Determination of Antibacterial Activity using Modified ISO 22196)**

DATE ANALYSED 15-Dec-15

DATE REPORTED 21-Dec-15

### RESULTS (AS CFU CM -2)

SAMPLE		CONTACT TIME		LOG REDUCTION	% DIFFERENCE
		0	24		
Polypropylene	<i>E. coli</i>	1.5E+04	2.4E+05	-	-
IMSL Tile	<i>E. coli</i>	1.5E+04	1.9E+05	-	-
Blank Tile	<i>E. coli</i>	1.5E+04	6.0E+04	-	-
Treated Sample	<i>E. coli</i>	1.5E+04	2.6E+02	2.4	99.57%
Polypropylene	<i>S aureus</i>	1.5E+04	5.2E+03	-	-
IMSL Tile	<i>S aureus</i>	1.5E+04	7.3E+03	-	-
Blank Tile	<i>S aureus</i>	1.5E+04	3.8E+03	-	-
Treated Sample	<i>S aureus</i>	1.5E+04	1.6E+03	0.4	58.06%

The above data shows the difference in the population following contact with the surface of the Treated Sample for 24 hours at 35°C under a RH of > 95% relative to the population recovered from the Blank Tile.

NS = Poor survival on control supplied.

INDUSTRIAL MICROBIOLOGICAL SERVICE LTD  
 PALE LANE  
 HARTLEY WINTNEY  
 HANTS  
 RG27 8DH  
 UK

PETER D ASKEW  
 MANAGING DIRECTOR



# IMSL

INDUSTRIAL MICROBIOLOGICAL SERVICES LTD

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**STUDY REPORT:** Determination of the Antibacterial Activity of a Ceramic Glaze Formulation against *Escherichia coli* and *Staphylococcus aureus* using ISO 22196: 2011.

**CLIENT:**

**REPORT NO:** IMSL 2015/11/002.1B

**DATED:** 21<sup>st</sup> December 2015

---

**Study:** Determination of the Antibacterial Activity of a Ceramic Glaze Formulation against *Escherichia coli* and *Staphylococcus aureus* using ISO 22196: 2011.

**Number:** IMSL 2015/11/002.1B

**Client:**

The above study was conducted in the laboratories of Industrial Microbiological Services Ltd at Pale Lane Hartley Wintney, Hants, RG27 8DH, UK. This report represents a true and accurate account of the results obtained.

**Start Date** 14<sup>th</sup> December 2015

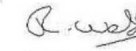
**Report Issued** 21<sup>st</sup> December 2015

**Supervisor** Kyle Allison  
Senior Microbiologist



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**Operator** Richard Webb  
Microbiologist



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**TEST REPORT: 7191260844-CHM21-01-RC**

Date: 21 JUN 2021 Tel: +65 69736171  
 Client's Ref: - Email: Randy.CHIN@tuvsud.com

Note: This report is issued subject to the Testing and Certification Regulations of the TÜV SÜD Group and the General Terms and Conditions of Business of TÜV SÜD PSB Pte Ltd. In addition, this report is governed by the terms set out within this report.

**SUBJECT**

Antibacterial Activity Evaluation

**CLIENT**

**SAMPLE SUBMISSION DATE / TEST DATE**

25 May 2021 / 01 Jun 2021

**DESCRIPTION OF SAMPLE**

One coated sample was submitted by the above company, as follows:

Product Description	Hyper Kilamic (HKC)
Batch no.	Treat 1
Concentration	HKC Max

**METHOD OF TEST**

JIS Z 2801:2010/A1:2012  
 "Antibacterial products – Test for antibacterial activity and efficacy"

The test microorganisms used were :

*Staphylococcus aureus* (ATCC 6538P)  
*Escherichia coli* (ATCC 8739)

Size of Coated Sample: 5 cm x 5 cm  
 Size of Uncoated Sample: 5 cm x 5 cm  
 Size of film: 4 cm x 4 cm polyethylene film  
 Volume of test inoculum : 0.2 ml



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**RESULTS**

Test microorganism (Bacterial cells inoculated per test piece)	Average of the number of viable cells of test microorganism per test piece		Value of Antibacterial Activity (Criteria : Not less than 2.0)
	0 hour	24 hours	
Staphylococcus aureus (ATCC 6538P) Uncoated Sample (Control)	130 000	38 000	-
	Less than 10		
Hyper Kilamic (HKC) Treat 1 (HKC Max)	Less than 10		More than 3.58
Test microorganism (Bacterial cells inoculated per test piece)	Average of the number of viable cells of test microorganism per test piece		Value of Antibacterial Activity (Criteria : Not less than 2.0)
	0 hour	24 hours	
Escherichia coli (ATCC 8739) Uncoated Sample (Control)	120 000	33 000	-
	Less than 10		
Hyper Kilamic (HKC) Treat 1 (HKC Max)	Less than 10		More than 3.52

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**Remarks :**

The above test results relate to the samples as received



MS CHUA XINNI  
HIGHER TECHNICAL  
EXECUTIVE



MS JACLYN NG  
MICROBIOLOGIST  
MICROBIOLOGY  
CHEMICAL & MATERIALS

