

Control of Plumbing Materials in Hong Kong

18 October 2023

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Content

- **Application for Water Supply**
- **General Acceptance (GA) System**
- **Directory Search for Water Supply Pipes and Fittings with Valid General Acceptance**
- **Surveillance Programme for the General Acceptance System**
- **Q&A**



Application for Water Supply (AWS)

Requirements in Waterworks Ordinance (Cap. 102) and Waterworks Regulations (Cap. 102A) for Application for Water Supply (AWS)

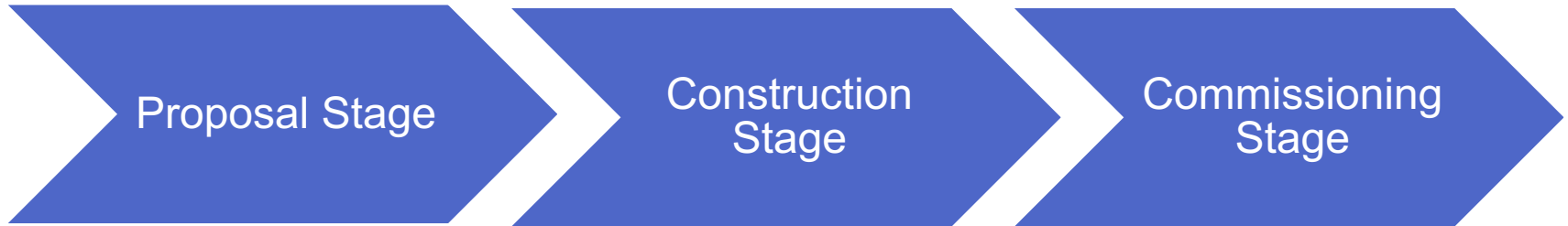
14. Restriction on construction etc. of fire services and inside services

- 1) Subject to subsection (2), a person must not construct, install, alter or remove a fire service or inside service unless the **Water Authority** has granted a **written permission** for it.
- 2) The Water Authority **may waive** the requirement of permission under subsection (1) in the case of alterations to a fire service or inside service which are, in his opinion, of a **minor nature**.
- 2) The construction or installation of, or alteration to, a fire service or inside service must be carried out in the prescribed way and **the pipes and fittings used** in the construction, installation or alteration **must be of the prescribed nature, size and quality**.

(s.14(1),(2),(3) WWO)



Application for Water Supply (AWS) (cont.)



- Project proponent to submit application for water supply [Form WWO 542]
- Licensed plumber to apply for construction of plumbing system [Form WWO 46]

- **Licensed plumber to submit Form WWO 1149 for pipes and fittings to be installed for the Water Authority's approval**

(materials not in GA system will also be considered but may take longer time for approval)

- Water Authority to permit commencement of works
- Licensed plumber to report completion of works
- Inspection by Water Authority

- All plumbing works comply with specified commissioning requirements
- Water Authority to effect water supply after all commissioning requirements are satisfied

Material Submission:

- A pipe or fitting shall comply with a prescribed specification in accordance with the Waterworks Regulations.
- The WSD implements the General Acceptance (GA) system to pre-approve the plumbing materials to facilitate the application process.
- Before commencement of works, the LP should
 - 1) submit WWO 1149 (list of Pipes and Fittings to be Installed) for WA's approval
 - 2) certify that all the pipes and fittings to be installed and materials to be used for the construction, installation, alteration or removal (construction etc.) of the Approved Plumbing Works shall be as prescribed by the Waterworks Regulations, Cap. 102A.



General Acceptance (GA) System

Regulation 20 of Waterworks Regulations (Cap. 102A) – Compliance with prescribed specification

- Schedule 2 to Cap. 102A provides a prescribed specification that relates to the size, nature, materials, strength, test requirements and workmanship of the pipe or fitting that must be complied with.

General Acceptance (GA) System

- At present, the WSD has a General Acceptance (GA) System in place to pre-approve plumbing products used in plumbing projects.
- To obtain a GA status, a supplier should submit either test result of a sample of the product or a certificate issued by certification body to prove conformity of the product to the statutory standards.
- If the submission is accepted, the WSD will include the product in its pre-approved list of the GA System.



General Acceptance (GA) System (cont.)

Plumbing and Engineering

The screenshot shows the website for the Water Supplies Department (WSD) of the Hong Kong Special Administrative Region. The page is titled "Plumbing and Engineering" and features a navigation menu with categories such as "About Us", "Core Businesses", "Customer Services", "Plumbing and Engineering", "Water Safety in Buildings", "Water Conservation", "Public Relations", "Media Corner", "Publications, Videos and Statistics", "Tenders, Contracts and Consultancies", and "What's New". The "Plumbing and Engineering" category is currently selected.

The main content area displays a grid of eight tiles, each representing a different service or information source:

- Licensed Plumbers
- Pipes and Fittings to be used in Inside Service or Fire Service
- Requirements on Plumbing Works and Submissions
- Information for Licensed Plumbers
- Voluntary Continuing Professional Development Scheme for LP
- Technical Committee on Plumbing
- Good Practice Guide on Plumbing Works
- Automatic Meter Reading (AMR) System
- Water Efficiency Labelling Scheme (WELS)
- Maintenance of Internal Plumbing
- Enhancement of Control of Inside Services' Construction and Installation
- Works of a Minor Nature

The tiles are arranged in two rows of four. Each tile contains an icon and a title, with a right-pointing arrow indicating further content. The icons include a plumber, a water tap with a drop, crossed tools, a lightbulb, a person climbing stairs, a group of people, a clipboard, and a meter.

<https://www.wsd.gov.hk/en/plumbing-engineering/index.html>

General Acceptance (GA) System (cont.)

Pipes and Fittings to be used in Inside Service or Fire Service

The screenshot shows a web browser displaying the Water Supplies Department (WSD) website. The page title is "Pipes and Fittings to be used in Inside Service or Fire Service". The navigation menu includes "About Us", "Core Businesses", "Customer Services", "Plumbing and Engineering", "Water Safety in Buildings", "Water Conservation", "Public Relations", "Media Corner", "Publications, Videos and Statistics", "Tenders, Contracts and Consultancies", and "What's New". The main content area is titled "Plumbing and Engineering" and features a sidebar with various links such as "Licensed Plumbers", "Requirements on Plumbing Works and Submissions", "Information for Licensed Plumbers", "Voluntary Continuing Professional Development Scheme for LP", "Technical Committee on Plumbing", "Good Practice Guide on Plumbing Works", "Automatic Meter Reading (AMR) System", "Water Efficiency Labelling Scheme (WELS)", "Maintenance of Internal Plumbing", "Enhancement of Control of Inside Services Construction and Installation", and "Works of a Minor Nature". The main content area includes sections for "Application for General Acceptance" (with links for "Procedures" and "Items to be reported in Form WW01149"), "Directory Search for Water Supply Pipes and Fittings with Valid General Acceptance" (with links for "Preface", "Search", and "Search Tips"), "Applicable Standards in Inside Service and Fire Service" (with links for "Search by Type" and "List by Number"), and "Other Information" (with links for "E-Application", "Instructions to E-Application", "Voluntary GA Product Shop Scheme", "Voluntary Quality Assurance Information Scheme 'GA+'", "Voluntary Low Metal Leaching Rate Pipes and Fittings Scheme 'GA*' ", "Surveillance Programme for the General Acceptance System", "Document", and "Expert Committee on Plumbing and Waterworks Materials"). A QR code is located in the bottom right corner of the page.

General Acceptance (GA) System (cont.)

Application for General Acceptance (GA)

WSD issues General Acceptance (GA) Letter to the pipes and fittings required to be reported in Form WWO1149. For the items to be reported in WWO1149:

(Updated as at 30 March 2022)

Pipes and fittings to be reported in Form WWO 1149 or Annex to Form WWO46 (1/2018)

A. GENERAL ACCEPTANCE (GA)

Currently Effective

- ✓ All pipes (in compliance with Part 1 of Schedule 2 in Waterworks Regulations)
- ✓ Copper pipe fittings (tee, bend, reducer, coupler and end cap only)
- ✓ Ductile iron pipe fittings (tee, bend and reducer only)
- ✓ PVC-U, PVC-C, PB, PE and PE-X pipe fittings (tee, bend and reducer only)
- ✓ Stainless steel pipe fittings (grooved type, press type and compression type for tee, bend, reducer and coupler only)
- ✓ Expansion joint/settlement joint/flexible joint/rubber joint
- ✓ Fittings including (i) draw-off taps, (ii) stop valves, (iii) gate valves, (iv) ball valves and (v) combination fittings
- ✓ Inlet flexible hose for tap/mixer only
- ✓ Valves including Pressure Reducing Valve, Butterfly valves, non-return valves/ check valves, strainer
- ✓ Lead-free grade soldering materials
- ✓ Brazing materials
- ✓ Soldering flux
- ✓ Water Heater (instantaneous type)
- ✓ Fiberglass storage cistern (for potable water)
- ✓ Lining Materials of Potable Water Tanks (tile grout, ceramic tile, paint/coating and cementitious products only) (please refer to the WSD Circular Letter No. 3/2019)
- ✓ Flow controller for tap/mixer¹



General Acceptance (GA) System (cont.)

Application for General Acceptance (GA)

- When submitting a GA application, need to include:
 - a) Covering letter signed by the applicant or stamped with the company chop;
 - b) Signed application form;
 - c) Relevant supporting document; and
 - d) Two identical copies of the catalogue/fact sheet of the pipes and fittings.
- No application fee is required
- Submit the Application
 - a) E-Application System
 - b) By E-mail
 - c) In person or by post
- Guideline of Submission, Common Pitfalls and Examples of test report are available to facilitate GA application



General Acceptance (GA) System (cont.)

Technical Requirements on Plumbing Works in Buildings

Water Supplies Department
The Government of the Hong Kong Special Administrative Region

WSD Enquiry Hotline - 28245000

EN 繁 简 AA f YouTube

Home | About Us | Core Businesses | Customer Services | **Plumbing and Engineering** | Water Safety in Buildings | Water Conservation | Public Relations | Media Corner | Publications, Videos and Statistics | Tenders, Contracts and Consultancies | What's New

Plumbing and Engineering

Licensed Plumbers

Pipes and Fittings to be used in Inside Service or Fire Service

Requirements on Plumbing Works and Submissions

> WSD Circular Letters

> Technical Requirements for Plumbing Works in Buildings

> Guide to Application for Water Supply

Home > Plumbing and Engineering > Requirements on Plumbing Works and Submissions > Technical Requirements for Plumbing Works in Buildings | Print

Technical Requirements for Plumbing Works in Buildings

Latest Version

- Technical Requirements for Plumbing Works in Buildings (Dec 2021) PDF
- Figures (Dec 2021) PDF
- Amendment Table for Dec 2021 Version PDF

<https://www.wsd.gov.hk/en/plumbing-engineering/requirements-for-plumbing-installation/technical-requirements-for-plumbing-works-in-bldgs/index.html>

General Acceptance (GA) System (cont.)

Technical Requirements on Plumbing Works in Buildings

December 2021 version

B5. Pipes and Pipe Fittings

Category	Copper Pipes and Fittings
Type	Copper Pipes
<u>Prescribed Specification in WWR</u>	<u>BS EN 1057:2006+A1:2010</u> Copper and copper alloys – Seamless, round copper tubes for water and gas in sanitary and heating applications
<u>Test item(s)</u>	<ul style="list-style-type: none">• Dimension - (Clause 7.3)• Hydrostatic test - (Clause 10.9 and Annex C2)• Tensile test - (Clause 10.2)• Hardness test - (Clause 10.3)• Bending test - (Clause 10.6)• Drift expanding test - (Clause 10.7)• Carbon Content test - (Clause 10.4) / Carbon film test - (Clause 10.5)• Chemical composition - (Clause 7.1)



General Acceptance (GA) System (cont.)

Waterworks Regulations (Cap. 102A)

Waterworks Regulations

Schedule 2—Part 1

S2-6

Cap. 102A




12. Copper pipes incorporating screw joints must comply with BS EN 12449:2016. The screws of the pipes must comply with BS 61:1969.
13. Cast copper alloy fittings, for copper pipes screwed in accordance with Table 1 of BS 61:1969, must comply with the relevant requirements in BS 143 and 1256:2000.
14. Copper pipes to be jointed with mechanical joint fittings or capillary fittings or, by bronze or autogenous welding, must comply with BS EN 1057:2006+A1:2010.
15. Mechanical joint fittings or capillary fittings made of copper or copper alloy must comply with the relevant requirements in BS EN 1254-1:1998, BS EN 1254-2:1998, BS EN 1254-4:1998, BS EN 1254-5:1998, BS EN 1254-6:2012, BS EN 1254-8:2012 and BS 8537:2010. Compression fittings made of copper or copper alloy for pipes laid underground must be of Type B. Soft soldering material must comply with BS EN ISO 9453:2014. Filler metal for brazing must comply with BS EN ISO 17672:2010.
16. Polybutylene pipes and fittings must comply with BS 7291-1:2010 and BS 7291-2:2010.
17. Polyethylene pipes and fittings must comply with BS EN 12201-1:2011, BS EN 12201-2:2011+A1:2013, BS EN 12201-3:2011+A1:2012, BS EN 12201-4:2012 and BS EN 12201-5:2011.
18. Crosslinked polyethylene pipes and fittings must comply with BS 7291-1:2010 and BS 7291-3:2010.

← Prescribed specification for copper pipe in WWR



General Acceptance (GA) System (cont.)

Sample General Acceptance Letter

 <p>水務署 Water Supplies Department</p> <p>總部 Headquarters 香港灣仔告士打道七號入境事務大樓 48 樓 48/F, Immigration Tower, 7 Gloucester Road, Wan Chai, Hong Kong</p> <p>本署編號 : (4) in WSD 3321/19 T/J(955/2019) Our ref. : 來函編號 : Your ref. :</p> <p>電話 : Tel. : 傳真 : 2824 0578 Fax. :</p> <p>27 November 2019</p>	<p style="text-align: center;">2</p> <p>Expiry Date: 11 October 2024</p> <p>This Authority hereby permits the use of the above pipe in fresh water plumbing systems subject to full adherence to Waterworks installation requirements.</p> <p>A condition of this acceptance is that the pipe to be installed should 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 pipe installed fails to meet that of the approved sample or if the pipe is found to be unsuitable for use in fresh water plumbing systems.</p> <p>For the use of the pipe in any project, the General Acceptance Number of this letter must be quoted as a means of identification of acceptance of the pipe by this Authority.</p> <p>Should you have any enquiries, please contact our Engineer Mr. Terry KUNG at tel. no. 3583 4086.</p> <p style="text-align: right;">Yours faithfully,  (CHAN Chung-kun) for Director of Water Supplies</p> <p>Encl. c.c. WSD 3321/1/82] - without catalogue ME/MC] - with soft copy only</p> <p>General Acceptance No. C20190572</p>																
<p>General Acceptance No.</p> <p>Approval of "TUB-E" Copper Pipe (General Acceptance No. C20190572)</p> <p>Your letters ref. BK2019-VM-1047 and BK2019-VM-1047(R1) dated 10 September 2019 and 28 October 2019 respectively refer.</p> <p>Having considered the test report ref. DP-SUMMARY-2019-3 issued on 18 October 2019 by Castco Testing Centre Limited, this Authority accepts that the pipe described below complies with, and its use when correctly installed does not contravene, the Waterworks Ordinance and Regulations.</p> <table border="1"><tr><td>Name of Manufacturer:</td><td>Mueller Europe Limited</td></tr><tr><td>Country of Origin:</td><td>UK</td></tr><tr><td>Brand:</td><td>tub-e</td></tr><tr><td>Details of Pipe:</td><td>Copper pipe (Table X)</td></tr><tr><td></td><td><table border="1"><thead><tr><th>Temper</th><th>Size (mm)</th></tr></thead><tbody><tr><td>R290</td><td>159 x 2</td></tr></tbody></table></td></tr><tr><td>Body Markings:</td><td>159mm-tub-e ® PREMIUM BS EN 1057 159 x 2.0 R290</td></tr></table> <p style="text-align: right;"></p>	Name of Manufacturer:	Mueller Europe Limited	Country of Origin:	UK	Brand:	tub-e	Details of Pipe:	Copper pipe (Table X)		<table border="1"><thead><tr><th>Temper</th><th>Size (mm)</th></tr></thead><tbody><tr><td>R290</td><td>159 x 2</td></tr></tbody></table>	Temper	Size (mm)	R290	159 x 2	Body Markings:	159mm-tub-e ® PREMIUM BS EN 1057 159 x 2.0 R290	
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Manufacturer,
Country of Origin,
Brand,
Product Details,
Body Marking

Expiry Date of GA Letter



General Acceptance (GA) System (cont.)

General Acceptance (GA) System

- In order to strengthen the control of plumbing materials, WSD Circular letter No. 2/2015 issued in August 2015 stated that the General Acceptance of pipes and fittings would be **valid for a maximum period of 5 years**, depending on the application documents possessed:

Compliance	GA Validity Period
(I) Possess British Standards Institution Certificate (BSI Kitemark)	Three years
(II) Possess Water Regulations Advisory Scheme of UK Certificate (WRAS)	Same expiry date as shown on WRAS Certificate
(III) Possess valid test reports from HOKLAS accredited Laboratory indicating compliance to relevant British Standard	Five years from issue date of test report



General Acceptance (GA) System (cont.)

General Acceptance (GA) System

- Approval data of GA System up to September 2023

	Pipe & Pipe Fitting	Tap, Mixer & Valve	Material	Heater	Total
Number of GA Letter	408	4 366	78	132	4 984
Number of GA Product	13 661	8 242	82	190	22 175



General Acceptance (GA) System (cont.)

Voluntary "General Acceptance Plus"("GA+") Scheme

- The "General Acceptance Plus"("GA+") Scheme is a voluntary scheme built on the existing General Acceptance ("GA") System. The scheme encourages **quality assurance in the manufacturing stage** of plumbing products.
- All pipes and fittings under the current GA System and new application are also eligible to apply for the "GA+"Scheme.
- In addition to the supporting documents for the GA application, GA applicants who wish to join the voluntary "GA+"Scheme are **required to submit quality assurance information** of their plumbing products in the manufacturing stage.
- Quality assurance information under the following categories will be considered:
 - a) Valid Certificate showing compliance to a "Quality Management System" with the scope of the certificate on the plumbing product concerned, e.g. ISO9001 or equivalent.
 - b) Valid Certificate of "Product Certification" scheme acceptable to the WSD for the plumbing product concerned.



General Acceptance (GA) System (cont.)

Voluntary GA* Scheme

- The GA* Scheme is a voluntary scheme built on the existing GA System. The scheme promotes **adoption of low metal leaching rate metallic plumbing products** in fresh water inside service. Suppliers, manufacturers and importers of GA plumbing products are encouraged to join the Scheme to introduce low metal leaching rate metallic plumbing products to the local market.
- Low metal leaching rate metallic plumbing products under the GA* Scheme shall possess supporting document/test report to prove **compliance with an Australian/New Zealand Standard AS/NZS 4020 Appendix H or I.**



General Acceptance (GA) System (cont.)



Directory Search for Water Supply Pipes and Fittings with Valid General Acceptance

Search for Water Supply Pipes and Fittings with Valid General Acceptance Status

Simple Search | Advanced Search | Creation of Annex to WWO 1149 (For applicants' use only) | Frequently Asked Questions | Mobile Application

Simple Search

General Acceptance No. (If any):

Category: *

Type/Material (Choose category first):

Brand (If any):

* Mandatory Input If search for low leaching rate "GA" Product only WELS Product Only

Colour Indication for Search Results:

- No particular colour (system background colour) : Possess valid General Acceptance Status
- Pale Yellow : General Acceptance Status has been suspended
- Light Pink : General Acceptance Status has been removed
- Grey : General Acceptance Status has been expired

SEARCH RESULT

Print | Download Search Result

Brand	Manufacturer	Origin	Material Type	Type	Water Supply System	Size	GA Number	Expiry Date	Approval Date	QA Info. Submitted	GA* GA*	Remarks	Surveillance Status	Surveillance Status Effective Date	Surveillance Remarks	Product Photo	Letter	Water Efficiency Labelling Scheme
tub-e	Zhuji City Howhi Air Conditioners Made Co Ltd	the Mainland of China	Copper/Copper Alloy	Copper fittings with end feed connection ends - Tee	Fresh Water	15mm to 108mm	A20230015	27-Mar-24	10-Jul-23	★★★	★						Download	
tub-e	Zhuji City Howhi Air Conditioners Made Co Ltd	the Mainland of China	Copper/Copper Alloy	Copper fittings with end feed connection ends - Tee	Fresh Water	15mm to 108mm	A20230015	27-Mar-24	10-Jul-23	★★★	★						Download	

- Search by :-
- General Acceptance No.
 - Category
 - Type/Material
 - Brand
 - GA*



<https://ga.wsd.gov.hk/en>



Directory Search for Water Supply Pipes and Fittings with Valid General Acceptance (cont.)

SEARCH RESULT

Print Download Search Result

Brand	Manufacturer	Origin	Material Type	Type	Water Supply System	Size	GA Number	Expiry Date	Approval Date	QA Info. Submitted	GA*	GA* Remarks	Surveillance Status	Surveillance Status Effective Date	Surveillance Remarks	Product Photo	Letter	Water Efficiency Labelling Scheme
Q tub-e	Zhuji City Howhi Air Conditioners Made Co Ltd	the Mainland of China	Copper/Copper Alloy	Copper fittings with end feed connection ends - Tee	Fresh Water	15mm to 108mm	A20230015	27-Mar-24	10-Jul-23	★ ★ ★	★						Download	●
Q tub-e	Zhuji City Howhi Air Conditioners Made Co Ltd	the Mainland of China	Copper/Copper Alloy	Copper fittings with end feed connection ends - Bend	Fresh Water	15mm to 108mm	A20230015	27-Mar-24	10-Jul-23	★ ★ ★	★						Download	●
Q Eagle	Mueller Europe Limited T/A Yorkshire Copper Tube	UK	Copper/Copper Alloy	Copper pipes (Type Y)	Fresh Water	22mm to 66.7mm	A20230014	12-Jun-24	5-Jul-23	★ ★ ★	★						Download	●
Q Eagle	Mueller Europe Limited T/A Yorkshire Copper Tube	UK	Copper/Copper Alloy	Copper pipes (Type X)	Fresh Water	15mm to 108mm	A20230014	12-Jun-24	5-Jul-23	★ ★ ★	★						Download	●
Q tub-e	Zhejiang Haijiang Co Ltd	the Mainland of China	Copper/Copper Alloy	Copper alloy fittings with solder ring connection ends - Tee	Fresh Water, Fire Services	15mm to 22mm, 1/2 inch	A20230013	25-Aug-24	19-Jun-23	★ ★ ★	★	Download					Download	●
Q tub-e	Zhejiang Haijiang Co Ltd	the Mainland of China	Copper/Copper Alloy	Copper alloy fittings with solder ring connection ends - Bend	Fresh Water, Fire Services	15mm to 28mm, 1/2 inch to 1 inch	A20230013	25-Aug-24	19-Jun-23	★ ★ ★	★	Download					Download	●
Q tub-e	Zhejiang Haijiang Co Ltd	the Mainland of China	Copper/Copper Alloy	Copper alloy fittings with solder ring connection ends - Reducer	Fresh Water, Fire Services	22mm x 1/2 inch	A20230013	25-Aug-24	19-Jun-23	★ ★ ★	★	Download					Download	●
Q tub-e	Zhejiang Haijiang Co Ltd	the Mainland of China	Copper/Copper Alloy	Copper alloy fittings with solder ring connection ends - Coupler	Fresh Water, Fire Services	15mm to 54mm, 1/2 inch to 2 inch	A20230013	25-Aug-24	19-Jun-23	★ ★ ★	★	Download					Download	●
Q Endex	Aalberts Integrated Piping Systems Ltd	UK	Copper/Copper Alloy	Copper alloy fittings with end feed connection ends - Tee	Fresh Water	15mm to 28mm, 1/2 inch to 1 inch	A20230012	28-Sep-24	14-Jun-23	★ ★ ★	★						Download	●

- Brand, Manufacturer, Origin, Material Type, Fitting Type, Water Supply System, Size
- GA Number, Expiry Date, Approval Date
- Voluntary GA+ Scheme, Voluntary GA* Scheme



Surveillance Programme for the General Acceptance System

- To further **enhance the conformity** of plumbing products with the GA requirements, the WSD implements a surveillance programme for GA products. For details, please refer to [WSD Circular Letter No. 8/2017](#).
- A **Material Testing Laboratory was set up in April 2018** for testing the plumbing products. The Laboratory was accredited by Hong Kong Accreditation Service (HKAS) under Hong Kong Laboratory **Accreditation Scheme (HOKLAS)** on 11 August 2021 (the registration number assigned to the Laboratory is HOKLAS 301).
- For **GA products with product certification**, WSD consider that the regular monitoring of the product quality in the product certification schemes **serves the same purpose as the Surveillance Programme** and hence will be considered as satisfying the surveillance requirement. GA plumbing products that satisfy the criteria in [WSD Circular Letter No. 4/2019](#) will be considered as satisfying the GA surveillance requirement and will not be further sampled by WSD in the market for compliance monitoring purpose

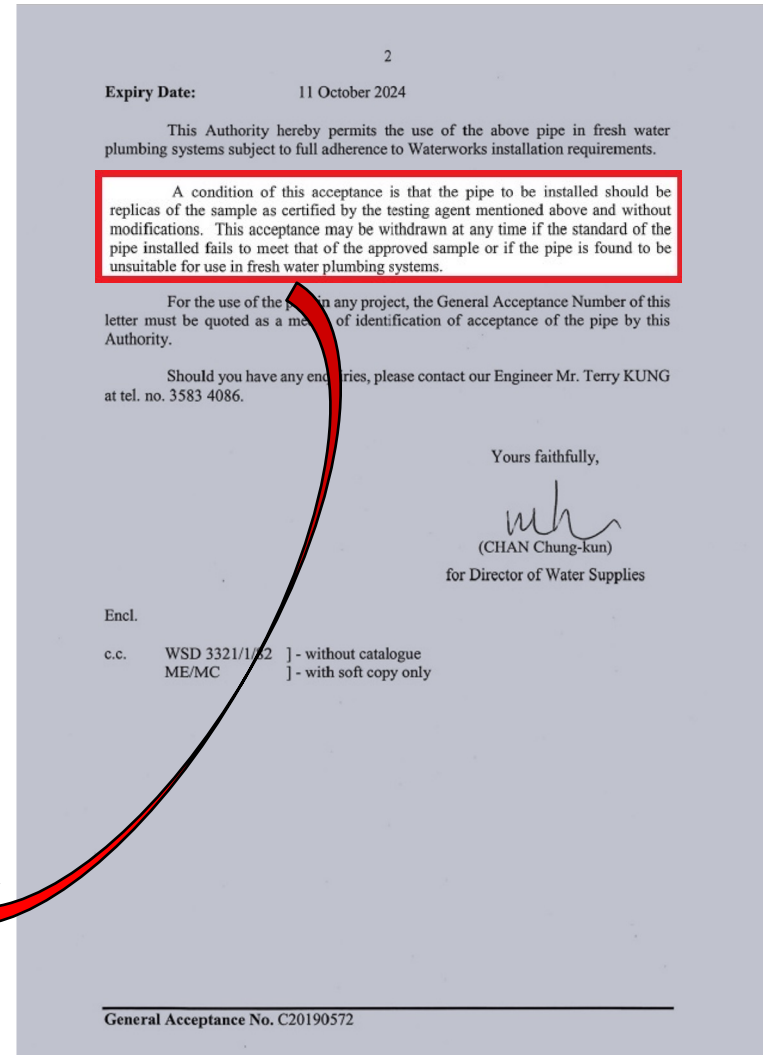


Surveillance Programme for the General Acceptance System (cont.)

- All water supply pipes and fittings for the use in inside service and fire service installations in Hong Kong shall comply with the requirements of the Water Authority.
- Prior approval of water fittings by the Water Authority is required before commencement of plumbing projects. The Water Authority shall issue a General Acceptance (“GA”) letter to approve water fittings that complied with the British Standard stipulated by the Water Authority.
- Granting of GA would be based on a type test to show conformity on sample tested. Water fittings with valid “GA” are also available in the retail market.

Enforcement of condition stipulated on the General Acceptance (GA) Letter:

“.....replicas of the samples.....fail to meet....withdrawn.....”



Surveillance Programme for the General Acceptance System (cont.)

Material Testing Laboratory



Chemical Testing Laboratory



Physical Testing Laboratory



Surveillance Programme for the General Acceptance System (cont.)

Flowchart of the Surveillance Programme

Sampling

To draw up monthly sampling programme and to acquire random samples from GA applicants.

Compliance Test

Conduct initial compliance test on one sample and further compliance test on three samples if NC is found in initial compliance test.

Suspension & Reinstatement of GA

WSD to issue GA Suspension Notice to products failing in compliance test.

To reinstate a suspended product, GA applicant shall submit product investigation plan with product test reports showing compliance with the requirements within the 6-month period for reinstatement.

If the submission is not received or not accepted within 6 months from the date of GA Suspension Notice. GA will be removed.

Appeal

Applicant may appeal against the decision on GA removal in writing to Director of Water Supplies. The decisions shall be final.



Surveillance Programme for the General Acceptance System (cont.)

Risk-based approach in sampling plan

12 samples per month in 2018. Currently increased to 20 samples per month, including:-

- | | | |
|------------------------------------|---|---|
| Water Safety in Fresh Water Supply | } | • Pipe x 1 |
| | | • Pipe Fittings x 5 |
| | | • Valve and other Fittings x 6 |
| | | • Tap & Mixer x 6 |
| | | • Soldering and Brazing Materials x 1 |
| Risk of backflow | } | • Flushing Cistern Float Operated Inlet Valve x 1 |
| | | |
| Adequate Quality Assurance | } | The following products will <u>NOT</u> be sampled |
| | | • “Product Certification”(e.g., BSI Kitemark, Benchmark, Watermark, etc.) |



Surveillance Programme for the General Acceptance System (cont.)

Publication of Surveillance Results

Surveillance Stage	Results	Surveillance Status Shown on website
Upon completion of initial compliance test	Pass	“Pass”
	Fail	“Under Compliance Test”
Upon completion of further compliance test	Pass	“Pass”
	Fail	“GA Suspended”
Upon conclusion of reinstatement assessment	Pass	“GA Reinstated”
	Fail	“GA Removed”
Suspended for a period over 6 months	-	“GA Removed”
Upon conclusion of the appeal	Allow	“GA Reinstated”
	Dismiss	“GA Removed”



Surveillance Programme for the General Acceptance System (cont.)

Publication of Surveillance Results

The screenshot shows the Water Supplies Department website with a navigation menu and a table titled "List of GA Products with Surveillance Status 'GA Removed'". The table has five columns: Effective Date, Type, Brand, GA Letter, and Surveillance Status. The first row is highlighted with a red border, and a red arrow points from a text box on the right to this row.

Effective Date	Type	Brand	GA Letter	Surveillance Status
15 August 2023	Copper alloy fittings with end feed connection ends - Coupler - WMC 50 mm	Welson	C20210357	GA Removed
13 December 2022	Stainless steel silent check valve - Fig. 290SS 40 mm	Empire	C20180281	GA Removed
4 September 2022	Wall mounted sink mixer	EXQ	C20210153	GA Removed
20 July 2021	Copper alloy globe valve - 25mm BRGL	Conex Banninger	B20190055	GA Removed
1 June 2021	Copper alloy gate valve - 3/4" WGV-501C	Wealthmark	C20161141	GA Removed
29 March 2021	(a) Brass compression ball valve - 15mm 619	Tipo	C20161080	GA Removed
	(b) Brass compression ball valve - 15mm 611			
23 November 2020	Copper-phosphorus brazing alloy - SILVERFOS2	Saldflux	M20180007	GA Removed
6 July 2020	Copper alloy equilibrium float valve -20mm 901BL	Pegler	C20180688	GA Removed
19 June 2020	Float operated valve - 3/8" 2105	Hansbo	C20160466F	GA Removed

Below the table is a section titled "List of GA Products with Surveillance Status 'GA Suspended'" with a table header showing columns for Effective Date, Type, Brand, GA Letter, and Surveillance Status.

Surveillance status:
GA Removed

Effective Date:
15 August 2023

General Acceptance No.:
C20210357

<https://www.wsd.gov.hk/en/plumbing-engineering/pipes-and-fittings-to-be-used-in-inside-service-or/surveillance-programme-for-ga-system-/index.html>

Surveillance Programme for the General Acceptance System (cont.)

Publication of Surveillance Results

SEARCH RESULT

Print Download Search Result

Brand	Manufacturer	Origin	Material Type	Type	Water Supply System	Size	GA Number	Expiry Date	Approval Date	QA Info. Submitted	GA* Remarks	Surveillance Status	Surveillance Status Effective Date	Surveillance Remarks	Product Photo	Letter	Water Efficiency Labelling Scheme
Welson	FS Welson Metal Manufacturing Company Limited	the Mainland of China	Copper/Copper Alloy	Copper alloy long screw connector	Fresh Water (TMF)	40mm to 100mm	C20230289	17-Aug-27	2-May-23	☆☆☆						Download	
Welson	FS Welson Metal Manufacturing Company Limited	the Mainland of China	Copper/Copper Alloy	Copper alloy long screw connector	Fresh Water, Fire Services	15mm to 50mm	C20221158	5-Oct-27	20-Dec-22	☆☆☆						Download	
Welson	Welson Metal & Sanitary Ware MFY	the Mainland of China	Copper/Copper Alloy	Copper alloy fittings with end feed connection ends - Tee	Fresh Water, Fire Services	3/4 inch to 2 1/2 inch	C20210359	20-Oct-25	8-Apr-21	☆☆☆		Pass	31-Dec-21			Download	
Welson	Welson Metal & Sanitary Ware MFY	the Mainland of China	Copper/Copper Alloy	Copper alloy fittings with end feed connection ends - Tee	Fresh Water, Fire Services	3/4 inch to 2 inch	C20210358	20-Oct-25	8-Apr-21	☆☆☆		Pass	31-Dec-21			Download	
Welson	Welson Metal & Sanitary Ware MFY	the Mainland of China	Copper/Copper Alloy	Copper alloy fittings with end feed connection ends - Coupler	Fresh Water, Fire Services	40mm to 150mm	C20210357	20-Oct-25	8-Apr-21	☆☆☆		GA Removed	15-Aug-23	Suspended model (WMC - 50mm)		Download	

Showing 5 results | Page: 1 / 1



GA Number



Surveillance Status



Surveillance Status Effective Date

- Pass
- Under Compliance Test
- GA Suspended
- GA Reinstated
- GA removed

<https://www.wsd.gov.hk/en/plumbing-engineering/pipes-and-fittings-to-be-used-in-inside-service-or/surveillance-programme-for-ga-system-/index.html>

Surveillance Programme for the General Acceptance System (cont.)

Statistics

Types of General Acceptance (GA) Products	GA Products tested (Oct 2017 to Mar 2023)
Pipe	73
Pipe fitting	265
Soldering/ brazing material	78
Valve	273
Tap/ mixer	242
Water closet inlet valve	57
Total:	988

GA Products tested	Compliance test Passed	Further compliance test being arranged	Further compliance test Failed
988	972 (98.4%)	6 (0.6%)	10 (1.0%)



End



Q&A

