



水務署
Water Supplies Department

總部 Headquarters

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13 April 2021

Distribution: All Licensed Plumbers and Authorized Persons

Dear Sirs,

Circular Letter No. 3/2021
Leaching Test for General Acceptance (GA) Application of
Taps and Mixers

The Water Supplies Department (WSD) has a General Acceptance (GA) system in place to pre-approve plumbing products used in plumbing projects. To get the pre-approval status for their products, applicants have to submit documents to show compliance with the statutory and other requirements imposed by the Water Authority (WA) as stated in the Technical Requirements for Plumbing Works in Buildings (Technical Requirements).

2. Currently, chemical composition test is required by WA for GA applications for taps and mixers for verifying the suitability of the products for meeting drinking water safety requirement. This Circular Letter promulgates an alternative route for verifying the WA's drinking water safety requirement for taps and mixers by means of leaching test.

LEACHING TEST – THE ALTERNATIVE ROUTE

3. To proceed the alternative route as mentioned above, the GA applicants of taps and mixers have to observe the following requirements:-

- (a) The taps and mixers shall have certification or test reports from either B.S. Kitemark, Water Regulations Advisory Scheme (WRAS) of United Kingdom, or accredited laboratories acceptable to WA.
- (b) The leaching test of taps and mixers shall follow the testing requirements of Australian/New Zealand Standard AS/NZS 4020:2018 Appendix H or I at a testing temperature $(20\pm 2)^{\circ}\text{C}$. The maximum allowable concentration of heavy metals of the extracts shall comply with the Hong Kong Drinking Water Standards (HKDWS)¹ as shown below:-

Metal	Maximum Allowable Concentration, $\mu\text{g/L}$
Antimony (Sb)	≤ 20
Arsenic (As)	≤ 10
Barium (Ba)	≤ 700
Boron (B)	≤ 2400
Cadmium (Cd)	≤ 3
Chromium (Cr)	≤ 50
Copper (Cu)	≤ 2000
Lead (Pb)	≤ 10
Mercury (Hg)	≤ 6
Nickel (Ni)	≤ 70
Selenium (Se)	≤ 40
Uranium (U)	≤ 30

¹ The Government currently adopts the corresponding guideline values/provisional guideline values in the fourth edition of the World Health Organization's Guidelines for Drinking-water Quality ("WHO Guidelines") published in 2011 as the Hong Kong Drinking Water Standards. <https://www.wsd.gov.hk/en/core-businesses/water-quality/my-drinking-water-quality/hong-kong-drinking-water-standards/index.html#metals>

- (c) The taps and mixers shall follow, except for chemical composition test, the current requirements as detailed in Table B7 of Technical Requirement².
- (d) The material grades of metallic components of taps and mixers shall be specified in test reports. The material grade of respective component shall comply with BS EN 1982:2008, BS EN 12420:2014, BS EN 12163:2016, BS EN 12164:2016, BS EN 12165:2016, BS EN 12167:2016, BS EN 10088-1:2014, BS EN 10088-2:2014, BS EN 10088-3: 2014, BS EN 10283:2010 where appropriate.
- (e) As usual, it is required to declare in the GA application form that the sample provided for testing and certification by any accredited testing agent is the representative sample of the model submitted for GA application and all such GA products manufactured shall be replicas of that sample, without modifications or change of specified materials of construction.

4. Please note that taps and mixers with GA approval, irrespective whether obtained through chemical composition test or leaching test, will be subject to equal chance of being selected under the GA surveillance programme. For taps and mixers with GA approval obtained through leaching test, they will have to show compliance with leaching test instead of chemical composition test in order to pass the compliance test under the GA surveillance programme.

EFFECTIVE DATE

5. This alternative testing requirement is applicable to GA applications with leaching test completion on or after 1 May 2021.

² <https://www.wsd.gov.hk/en/plumbing-engineering/requirements-for-plumbing-installation/technical-requirements-for-plumbing-works-in-bldgs/index.html>

ENQUIRY

6. Should you have any enquiry, please contact our Mechanical Engineer/Material Control at telephone no. 2294 2656.

Yours faithfully,

(Original Signed)

(Roger WONG)

for Water Authority

(with Chinese translation)

c.c. Housing Department (Attn: SM/QM)
 Buildings Department
 Architectural Services Department
 Fire Services Department
 The Hong Kong Housing Society
 The Hong Kong Institute of Architects
 The Hong Kong Institution of Engineers
 The Hong Kong Institute of Surveyors
 The Chartered Institute of Plumbing and Heating Engineering – Hong Kong Branch
 Hong Kong Plumbing and Sanitary Ware Trade Association Ltd.
 Hong Kong Licensed Plumbing Professionals Association Ltd.
 Hong Kong Plumbing General Union
 Hong Kong Water Works Professionals Association Ltd.
 The Hong Kong Institution of Plumbing and Drainage Ltd.
 Plumbing Technology Student Association
 The Association of Registered Fire Service Installation Contractors of Hong Kong Limited
 Real Estate Developers Association of Hong Kong
 Hong Kong Institute of Vocational Education
 Hong Kong Institute of Construction, Construction Industry Council
 The Hong Kong Construction Association, Ltd
 Hong Kong General Building Contractors Association Ltd
 The Hong Kong Federation of Electrical & Mechanical Contractors Ltd
 Contractor's Authorised Signatory Association Ltd
 Registered Minor Works Contractor Signatory Association Ltd
 Hong Kong Registered Contractors Association Company Ltd
 Building Services Operation and Maintenance Executives Society
 The Hong Kong Air Conditioning and Refrigeration Association Ltd
 Hong Kong Licensed Plumbers Union Limited
 Li Ka Shing Institute of Professional and Continuing Education, The Open University of Hong Kong
 The Association of Electrical and Mechanical Engineering (Hong Kong) Ltd
 Pipeman Engineering (International) Limited
 Hong Kong Institute of Water and Sanitation Safety
 WSD 3318/15/81