



水務署

Water Supplies Department

總部 Headquarters

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Our ref.

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21 June 2019

Distribution: All Licensed Plumbers and Authorized Persons

Dear Sirs,

Circular Letter No. 3/2019

Control on Lining Materials of Potable Water Tanks of Inside Service

Water tanks are commonly used in the inside service and is regarded as a fitting under the Waterworks Ordinance. The internal surface of potable water tanks is commonly applied with lining materials. As compared with other pipes and fittings in inside service, the lining materials will be in direct contact with potable water with relatively high surface area-to-volume ratio and relatively long contact time. Therefore, the use of suitable lining materials is of great importance to water safety. In order to achieve a better control, Licensed Plumbers shall be required to report the use of lining materials of potable water tanks to the WA using Form WWO 1149¹.

¹ Plumbing works must not commence until the plumbing proposals have been approved by WA in writing. Before proceeding with the works under the approved plumbing proposal, the licensed plumber is required to submit Form WWO 46 to apply for the permission of the WA. Form WWO 1149 should also be submitted together with Form WWO 46 if such submission has not been made.

PROPOSED CONTROL ON LINING MATERIALS

2. According to the paragraph 23 under Part 1 of Schedule 2 to the Waterworks Regulations, any non-metallic materials and products for use in contact with water intended for human consumption must comply with the relevant requirements of BS 6920:2014. Therefore, all lining materials for potable water tanks shall comply with the relevant requirements of BS 6920:2014.

3. Among the commonly used lining materials for water tanks, the “ceramic tile” and “tile grout” are normally used for new development projects while the “paint/coating” and “cementitious products” are normally used for repairing works. These four types of lining materials should be included as reporting items in Form WWO 1149. General Acceptance (GA) will be granted to compliant lining materials. Testing specifications of the lining materials are detailed at Annex.

4. While several layers of lining materials may be applied to a potable water tank, only the lining materials in direct contact with potable water will affect drinking water quality and will be included under GA control.

RESPONSIBILITIES OF RELEVANT STAKEHOLDERS

5. To facilitate the control on lining materials of potable water tanks, the responsibilities of relevant stakeholders are given below:-

Developer/Project Owner/Contractor

- (i) To specify compliant lining materials in specifications for procurement and application in potable water tanks of inside service.
- (ii) To provide product information and supporting documents of lining materials to be used in the project to Licensed Plumbers for reporting in Form WWO 1149.

Licensed Plumber

- (i) To report the details of the lining materials to be used in potable water tanks for plumbing works in Form WWO 1149.
- (ii) To obtain supporting documents from Developer/Project Owner/Contractor for the lining materials reported in Form WWO 1149 to be used in potable water tanks for the plumbing works.

EFFECTIVE DATE

6. The effective date of reporting the abovementioned lining materials will be **1 July 2020** to allow adequate time for the suppliers to apply for GA of lining materials for use in plumbing projects. All the Form WWO 1149 submitted on or after the above date will be required to report the use of lining materials of potable water tanks.

ENQUIRY

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

Yours faithfully,

(Original Signed)

(CHAN Chung Kun)
for Water Authority

Encl.

(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 Council
 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 Ltd
 Real Estate Development Association of Hong Kong
 Hong Kong Institute of Vocational Education
 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

WSD 3318/15/81

Lining materials of potable water tanks to be reported in Form WWO 1149

Type of Internal Lining Material	Testing Standards & Requirements	Material Control Measures
Tile Grout (Fig. 1)	BS 6920-1:2014 Clause 4 to 8	<ul style="list-style-type: none"> • To be included as a reporting item in Form WWO 1149
Ceramic Tile (Fig. 1,2&3)	BS 6920-1:2014 Clause 8	
Paint/Coating (Fig. 2)	BS 6920-1:2014 Clause 4 to 8	
Cementitious Products ² (Fig. 3)	BS 6920-1:2014 Clause 4 to 8	

² (i) Cementitious products of lining materials in direct contact with potable water shall refer only to premixed products BUT not those prepared in-situ.
(ii) Lining materials to be reported in Form WWO 1149 do not include the underlying lining materials that are NOT in direct contact with potable water e.g. underlying cementitious products, reinforced concrete.

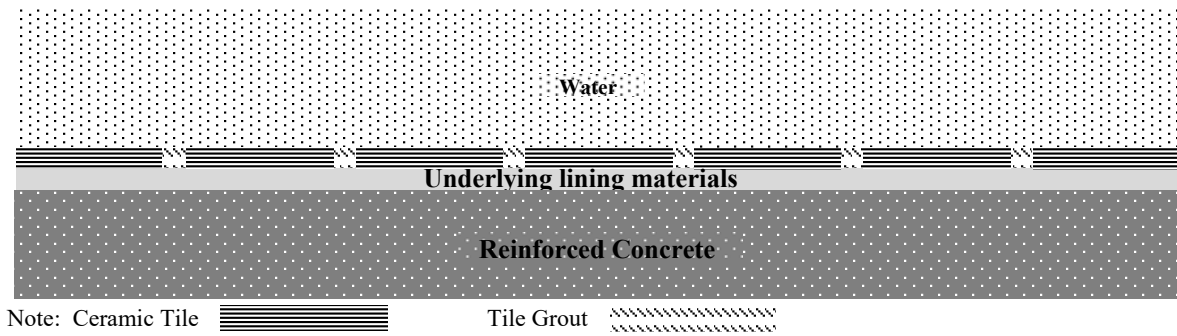


Fig.1 - Ceramic Tile & Tile Grout to be reported in Form WWO 1149

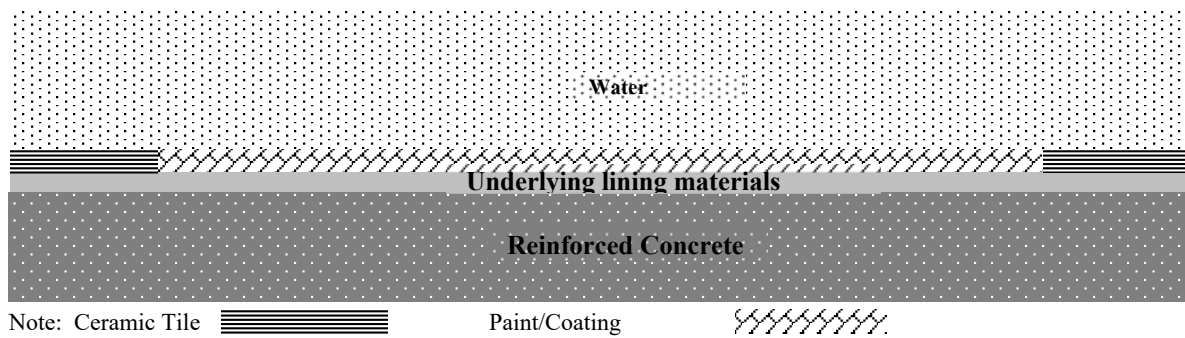


Fig.2 - Ceramic Tile & Paint/Coating to be reported in Form WWO 1149

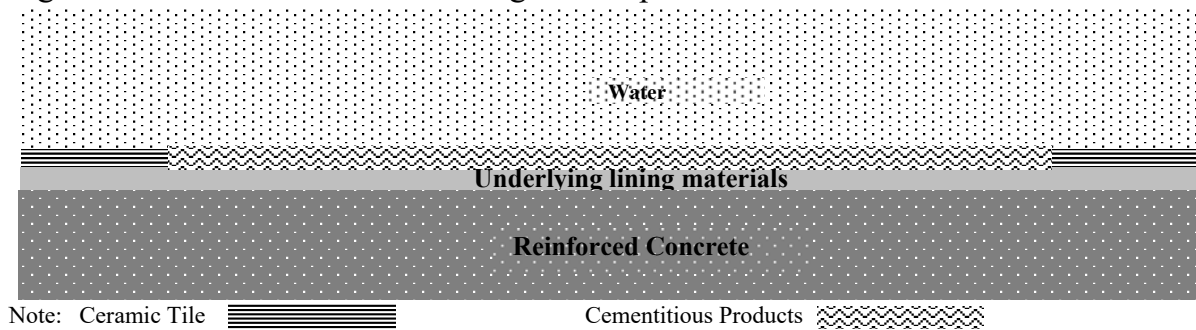


Fig.3 - Ceramic Tile & Cementitious Products to be reported in Form WWO 1149