

**SINGAPORE STANDARD**

**Suitability of non-metallic products for  
use in contact with water intended for  
human consumption with regard to their  
effect on the quality of the water**

– Part 2:1: Methods of test – Samples for testing

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The organisations in which the experts of the Working Group are involved are:

*Longus Consulting*

*PUB, the National Water Agency*

*Setsco Services Pte Ltd*

*Singapore Sanitary Ware Importer and Exporter Association*

*Singapore Water Association*

*Standard Chemical Corporation Pte Ltd*

*TUV SUD PSB Pte Ltd*

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## National Foreword

This Singapore Standard was prepared by the Working Group on Drinking Water appointed by the Technical Committee on Water under the direction of the Chemical Standards Committee.

This is a revision of SS 375 : Part 2:1: 2001. It is an identical adoption of BS 6920-2.1:2014 'Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water – Part 2: Methods of test – Section 2.1: Samples for testing', and is implemented with the permission of BSI Standards Limited.

The following editorial changes were made:

<u>Clauses/Subclauses</u>	<u>Modification</u>
Clause 1 – NOTE; Bibliography – Other documents	<i>Deleted the reference to UK regulations</i>  <i>Explanation: These regulations are not applicable to Singapore.</i>

Where appropriate, the words 'British Standard' have been replaced by 'Singapore Standard'. The references to BS 6920 series have been replaced by the following Singapore Standards:

BS 6920 Series	Corresponding Singapore Standard
BS 6920	SS 375
BS 6920-2.2.2	SS 375 : Part 2:2:2
BS 6920-2.2.3	SS 375 : Part 2:2:3
BS 6920-2.3	SS 375 : Part 2:3
BS 6920-2.4	SS 375 : Part 2:4
BS 6920-2.5	SS 375 : Part 2:5
BS 6920-2.6	SS 375 : Part 2:6
BS 6920-2	SS 375 : Part 2
BS 6920-3	SS 375 : Part 3

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all of such patent rights.

### NOTE

1. Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions.
2. An SS or TR is voluntary in nature except when it is made mandatory by a regulatory authority. It can also be cited in contracts making its application a business necessity. Users are advised to assess and determine whether the SS or TR is suitable for their intended use or purpose. If required, they should refer to the relevant professionals or experts for advice on the use of the document. Enterprise Singapore shall not be liable for any damages whether directly or indirectly suffered by anyone or any organisation as a result of the use of any SS or TR.
3. Compliance with a SS or TR does not exempt users from any legal obligations.

## **Foreword**

### **Publishing information**

This part of BS 6920 is published by BSI Standards Limited, under license from The British Standards Institution, and came into effect on 30 June 2014. It was prepared by Technical Committee EH/6, *Effects of materials on water quality*. A list of organizations represented on this committee can be obtained on request to its secretary.

### **Supersession**

This part of BS 6920 supersedes BS 6920-2.1:2000 + A3: 2008, which is withdrawn.

### **Relationship with other publications**

The following parts and sections of BS 6920 have been published.

- Part 1: *Specification*;
- Part 2: *Methods of test*;
- Section 2.1: *Samples for testing*;
- Section 2.2: *Odour and flavor of water*;
- Subsection 2.2.1: *General method of test*;
- Subsection 2.2.2: *Method of testing odours and flavours imparted to water by multi-layered hoses and composite pipes and tubes*;
- Subsection 2.2.3: *Method of testing odours and flavours imparted to water by hoses for conveying water for food and drink preparation*;
- Section 2.3: *Appearance of water*;
- Section 2.4: *Growth of aquatic microorganisms test*;
- Section 2.5: *The extraction of substances that may be of concern to public health*;
- Section 2.6: *The extraction of metals*.
- Part 3: *High temperature tests*;
- Part 4: *Method for the GCMS identification of water leachable organic substances*.

### **Information about this document**

This is a full revision of the standard, and introduces the following principal changes:

- New definitions for the terms multi-layered product (see 3.2), inradius (3.5), thermoplastic material (3.6), thermosetting material (3.7), cure (3.8), solvent cement (3.10) and porous seal coat (3.11) have been provided.
- The specification of metal couplings has been changed (see 4.2.2).
- A new requirement for porous seal coats has been added (see 6.13.2).
- New requirements for *in-situ* applied pipe linings and coatings (see 7.2), resin anchors (7.7) and solvent cements (7.8) have been added.
- Reporting requirements have been amended (see Clause 9).



### **Hazard warnings**

**WARNING.** This British Standard calls for the use of substances and/or procedures that can be injurious to health if adequate precautions are not taken. It refers only to technical suitability and does not absolve the user from legal obligations relating to health and safety at any stage.

### **Use of this document**

It has been assumed in the preparation of this part of BS 6920 that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

### **Presentational conventions**

The provisions of this standard are presented in roman (i.e. upright) type. Its methods are expressed as a set of instructions, a description, or in sentences in which the principal auxiliary verb is "shall".

*Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.*

### **Contractual and legal considerations**

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

**Compliance with a British Standard cannot confer immunity from legal obligations.**

## **Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water – Part 2:1: Methods of test – Samples for testing**

### **1 Scope**

This section of SS 375 describes the preparation of test samples of all types of non-metallic (including cementitious) materials and products, including water fittings and components, pipes and materials used in coating, protection, lining, jointing, sealing and lubrication, for their suitability for use in contact with water intended for human consumption, with regard to their effect on the quality of the water.

This standard does not cover metallic materials and products, unless they will be used in conjunction with a non-metallic material, e.g. coating.

NOTE – The National Regulator may specify additional provisions in some cases and will assess the significance of the results obtained.

### **2 Normative references**

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS 864-2, *Capillary and compression tube fittings of copper and copper alloy – Part 2: Specification for capillary and compression fittings for copper tubes*

BS 887: 1982, *Specification for precision vernier callipers*

BS 4372: 1968, *Specification for engineers' steel measuring rules*

SS 375 : Part 1 :2015, *Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water – Part 1 : Specification*

SS 375 : Part 2:2:2, *Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water - Part 2:2:2: Methods of test - Odour and flavour of water – Method of testing odours and flavours imparted to water by multi-layered hoses and pipes*

SS 375 : Part 2:2:3, *Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water - Part 2:2:3: Methods of test - Odour and flavour of water – Method of testing odours and flavours imparted to water by hoses for conveying water for food and drink preparation*

SS 375 : Part 2:3, *Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water - Part 2:3 Methods of test - Appearance of water*

SS 375 : Part 2:4, *Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water - Part 2:4 Methods of test – Growth of aquatic microorganisms test*

SS 375 : Part 2:5, *Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water - Part 2:5 Methods of test – The extraction of substances that may be of concern to public health*

SS 375 : Part 2:6, *Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water - Part 2:6 Methods of test - The extraction of metals*

SS 375 : Part 3, *Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water - Part 3 : High temperature tests.*

BS EN 197-1, *Cement – Part 1: Composition, specifications and conformity criteria for common cements*

BS EN 1057, *Copper and copper alloys – Seamless, round copper tubes for water and gas in sanitary and heating applications*

BS EN 1992-3, *Eurocode 2 – Design of concrete structures – Part 3: Liquid retaining and containing structures*

BS EN 12620, *Aggregates for concrete*

BS EN 30012-1, *Quality assurance requirements for measuring equipment – Part 1: Metrological confirmation system for measuring equipment*

BS EN ISO 2808 (BS 3900-C5), *Paints and varnishes – Determination of film thickness*

BS EN ISO 3696, *Water for analytical laboratory use - Specification and test methods*

BS EN ISO 10523: 2012, *Water quality – Determination of pH*

BS ISO 2230, *Rubber products – Guidelines for storage*