



WMTS-525:2018

Appliances - Therapeutic baths

WaterMark Technical Specification

2018





WMTS-525:2018

Appliances - Therapeutic baths

WaterMark Technical Specification

Publication History:-

First published as WMTS-525:2018

2018



IMPORTANT NOTICE AND DISCLAIMER

While the ABCB, the participating Governments and other groups or individuals who have endorsed or been involved in the development of the WMTS have made every effort to ensure the information contained in this WMTS is accurate and up to date, such information does not in any way constitute the provision of professional advice.

The ABCB gives no warranty or guarantee and accepts no legal liability whatsoever arising from or connected to, the accuracy, reliability, currency or completeness of any material contained in this WMTS.

Users should seek appropriate independent professional advice prior to relying on, or entering into any commitment based on material in this WMTS in relation to plumbing or related activities. Its interpretation in no way overrides the approvals processes in any jurisdiction.

The ABCB welcomes suggestions for improvement in the WMTS and encourages readers to notify it immediately of any apparent inaccuracies or ambiguities. Contact the ABCB via phone on 1300 134 631, email at watermark@abcb.gov.au or write to the WaterMark Administering Body, ABCB, GPO Box 9839, Canberra ACT 2601.

© Australian Government and States and Territories of Australia 2016

This work is copyright. Apart from any use as permitted under the Copyright Act 1968, no part may be reproduced by any process without prior written permission from the Commonwealth and State and Territory Governments of Australia. Requests and inquiries concerning reproduction and rights should be addressed to the:

General Manager – Australian Building Codes Board
GPO Box 9839
Canberra ACT 2601

Phone 1300 134 631 – Fax 02 6213 728



PREFACE

This WaterMark Technical Specification was prepared in accordance with the Manual for the WaterMark Certification Scheme. Appendix 4, Protocol for Developing Product Specifications.

The objective of this WaterMark Technical Specification is to enable product certification in accordance with the requirements of the Plumbing Code of Australia (PCA).

The word 'VOID' set against a clause indicates that the clause is not used in this WaterMark Technical Specification. The inclusion of this word allows a common use clause numbering system for the WaterMark Technical Specifications.

The term 'normative' has been used in this WaterMark Technical Specification to define the application of the appendices to which they apply. A 'normative' appendix is an integral part of a WaterMark Technical Specification.

The test protocol and information in this WaterMark Technical Specification was arranged to meet the authorisation requirements given in the PCA.

The WaterMark Schedule of Products and the WaterMark Schedule of Excluded Products are dynamic lists and change on a regular basis. Based on this function, these schedules are now located on the ABCB website (www.abcb.gov.au). These lists will be version controlled with appropriate historic references.



ACKNOWLEDGEMENTS

WaterMark Technical Specification WMTS-526:2018 was prepared in accordance with the Manual for the WaterMark Certification Scheme, Appendix 4, Protocol for Developing Product Specifications, and was approved by the ABCB on 09 July 2018.



TABLE OF CONTENTS

1 Scope 1

2 Application..... 1

3 Referenced documents..... 1

4 Definitions 2

5 Materials 2

6 Marking 2

7 Packaging 3

8 Design 3

9 Performance criteria and test methods 4

10 Test Sequence and test methods..... 5

11 Product documentation 5

Appendix A Means for demonstrating compliance with this technical Specification 6



1 SCOPE

This Technical Specification sets out minimum product requirements for the connection of Therapeutic Baths to the water service and/or sanitary plumbing piping

2 APPLICATION

The appliances covered by this Technical Specification shall be intended for connection to the water supply and/or sanitary plumbing piping. This specification has been developed to address risks identified with the installation and use of therapeutic baths, including performance failures, leakage and impaired or failed conditions.

This Technical Specification will be referenced on the WaterMark Certification Scheme Schedule of Specifications.

Appendix A sets out the means by which compliance with this WaterMark Technical Specification shall be demonstrated by a manufacturer for the purpose of product certification.

3 REFERENCED DOCUMENTS

The following documents are referred to in this Technical Specification:

AS

- | | |
|--------|--|
| 1589 | Copper and copper alloy waste fittings |
| 2887 | Plastic waste fittings |
| 3688 | Water and Gas supply—Copper and copper alloy body compression and capillary fittings and threaded-end connectors |
| 4032.1 | Water Supply – Valves for the control of heated water supply temperatures - Thermostatic Mixing Valves |
| 4032.4 | Water Supply – Valves for the control of heated water supply temperatures – Thermostatically Controlled Tapware |

AS/NZS

- | | |
|--------|--|
| 1260 | PVC-U pipes and fittings for drain, waste and vent application |
| 2845.1 | Water supply—Backflow prevention devices |
| 2845.2 | Part 2: Air gaps and break tanks |



3499	Flexible tube connectors for water supply
3500.0	Plumbing and Drainage, Part 0: Glossary of terms
3500.1	Plumbing and Drainage, Part 1: Water services
3500.2	Plumbing and Drainage, Part 2: Sanitary plumbing and drainage
4020	Testing of products for use in contact with drinking water
IEC	
61770	Electric appliances connected to the water mains—Avoidance of back siphonage and failure of hose-sets
NCC	
PCA	Plumbing Code of Australia

4 DEFINITIONS

For the purpose of this WaterMark Technical Specification, the definitions given in AS/NZS 3500.0 and those below apply.

4.1 Therapeutic Bath

An appliance in which the human body may be immersed in water for ablutionary or treatment purposes. The appliance may include but is not limited to, integral components that control the inflow and outflow of water, and water temperature.

5 MATERIALS

VOID

6 MARKING

Each appliance shall be permanently and legibly marked with the following:

- (a) Manufacturer's name, brand or trademark.
- (b) WaterMark.
- (c) Licence number.



- (d) The number of this Technical Specification, i.e., WMTS-525
- (e) If the Hot and Cold water inlets cannot be interchanged, marking to indicate the hot and cold inlet connection.
- (f) Batch identification
- (g) Maximum Working Temperature
- (h) Maximum Working Pressure (PN)

Other markings relevant to the correct installation and safe operation of the product, as specified in relevant standards referenced in this specification

7 PACKAGING

The product shall be supplied with suitable packaging to prevent damage or contamination during transport and installation.

8 DESIGN

8.1 End connectors

Water service connections shall be capable of making a watertight seal to a fitting end connection complying with AS 3688.

Sanitary plumbing connections shall be capable of making a watertight connection to a waste fitting complying with AS 1589 or AS 2887 or a sanitary plumbing pipe or fitting complying with AS/NZS 1260.

8.2 Backflow prevention

Appliances shall—

- (a) comply with the backsiphonage test of AS 2845.2:1996 or
- (b) be supplied with a backflow prevention device complying with AS/NZS 2845.1 of a type required in AS/NZS 3500.1.

Where backflow prevention devices are required to be installed external to the appliance or apparatus, the appliance shall be supplied with the appropriate installation instructions.



ABCBC

8.3 Water seal

If the appliance has an integral waste trap, the water seal shall comply with AS 1589 or AS 2887 and AS/NZS 3500.2.

9 PERFORMANCE CRITERIA AND TEST METHODS

9.1 Products in contact with drinking water

Products in contact with drinking water shall comply with AS/NZS 4020. Hoses shall be tested as end-of-line product.

The only products considered to be in contact with drinking water are those upstream and inclusive of, the backflow prevention device

9.2 Appliance hose connections

Hoses connected to appliances shall comply with the hose-sets requirements of AS/NZS 3499 or IEC 61770.

9.3 Strength of assembly

9.3.1 Structural Strength

When filled with water and loaded to 1.2 times the manufacturer's maximum safe working load (including the weight of the water) the bath, water supply and drainage pipework, shall not leak or the fixture fail to support the bath.

9.3.2 Water Inlet

When tested at twice the maximum working pressure and at the maximum working temperature for 5 minutes, the water inlet assembly shall not leak.

9.4 Integral Thermostatic Mixing Valves

The performance of integral thermostatic mixing valves shall comply with AS4032.1 or AS4032.4.

9.5 Showers

The performance of integral showers shall comply with AS/NZS 3662.

Shower devices and connecting hoses subject to permanent hydrostatic pressure shall comply with the relevant requirements of AS/NZS 3718.

10 TEST SEQUENCE AND TEST METHODS

VOID

11 PRODUCT DOCUMENTATION

11.1 Product data

Product data, which identifies critical product characteristics such as the following, shall be available:

- (a) Drainage requirements including size and position of piping.
- (b) Water supply temperature and pressure limitations.
- (c) Safe Working Load

11.2 Installation instructions

Detailed installation instructions shall be provided, which shall include the following:

- (a) Reference to installation in accordance with AS/NZS 3500.1 and AS/NZS 3500.2 including the installation of any non-integral backflow prevention device.
- (b) Step-by-step instructions.
- (c) Commissioning procedures and adjustments required.
- (d) Troubleshooting guide.
- (e) Contact details for after-sales service.

APPENDIX A MEANS FOR DEMONSTRATING COMPLIANCE WITH THIS TECHNICAL SPECIFICATION

(Normative)

A.1 SCOPE

This appendix sets out the means by which compliance with this WaterMark Technical Specification shall be demonstrated by a manufacturer under the WaterMark product certification scheme.

A.2 RELEVANCE

The long-term performance of plumbing systems is critical to the durability of building infrastructure, protection of public health and safety, and protection of the environment.

A.3 PRODUCT CERTIFICATION

The purpose of product certification is to provide independent assurance of the claim by the manufacturer that products comply with this WaterMark Technical Specification.

The certification scheme serves to indicate that the products consistently conform to the requirements of this WaterMark Technical Specification.

The sampling and testing plan, as detailed in Paragraph A5 and Table A1, shall be used by the WaterMark Conformity Assessment Body. Where a batch release testing program is required, it shall be carried out by the manufacturer as detailed in Paragraph A5 and Table A2.

A.4 DEFINITIONS

A.4.1 Batch release test

A test performed by the manufacturer on a batch of components, which has to be satisfactorily completed before the batch can be released.

A.4.2 Production batch

Clearly identifiable collection of units, manufactured consecutively or continuously under the same conditions, using material or compound to the same specification.

A.4.3 Sample

One or more units of product drawn from a batch, selected at random without regard to quality.

NOTE: The number of units of product in the sample is the sample size.

A.4.4 Sampling plan

A specific plan that indicates the number of units of components or assemblies to be inspected.

A.4.5 Type test batch

Schedule of units of the same type, identical dimensional characteristics, all the same nominal diameter and wall thickness, from the same compound. The batch is defined by the manufacturer.

A.4.6 Type testing (TT)

Testing performed to demonstrate that the material, component, joint or assembly is capable of conforming to the requirements given in the WaterMark Technical Specification.

A.5 TESTING

A.5.1 Type testing

Table A1 sets out the requirements for type testing and frequency of re-verification.

A.5.2 Batch release testing

Table A2 sets out the minimum sampling and testing frequency plan for a manufacturer to demonstrate compliance of product(s) to this WaterMark Technical Specification on an ongoing basis. However, where the manufacturer can demonstrate adequate process control to the certifying body, the frequency of the sampling and testing nominated by the manufacturer's quality plan and/or documented procedures shall take precedence for the purposes of WaterMark product certification.

A.5.3 Retesting

In the event of a batch release test failure, the products within the batch may be retested at a frequency agreed to with the WaterMark Conformity Assessment Body and only those batches found to comply may be claimed and/or marked as complying with this WaterMark Technical Specification.

**TABLE A1
TYPE TESTS**

Characteristic	Clause	Requirement	Test method	Frequency
Marking	6	Marking	Visual Inspection	At any change of the marking process or requirements
Design	8.1	End connectors	Design review	At any change of design
	8.2	Backflow protection.	Design review	
Performance	9.1	Products in contact with drinking water	AS/NZS 4020 or Clause 9.1	At any change of design or materials specification
	9.2	Hose sets	AS/NZS 3499 or IEC 61770	At any change in design or manufacturing process
	9.3.1	Structural Strength	Clause 9.3.1	
	9.3.2	Water Inlet	Clause 9.3.2	
	9.4	Integral Thermostatic Valves	AS 4032.1 or 4032.4	At any change in design
	9.5	Showers	AS/NZS3662	At any change in design
Product documentation	11	Installation instructions	Visual inspection	At any change of installation or operation specification

TABLE A2
BATCH RELEASE TESTS

Characteristic	Clause	Requirement	Test method	Frequency
Marking	6	Marking	Visual Inspection	Once per batch
Design	8.1	End connectors	Dimensional	Once per batch
	8.2	Backflow protection	Visual Inspection	
Performance	9.3.2	Water Inlet	Clause 9.3.2	Once per batch
Product documentation	11	Installation instructions	Visual inspection	Once per batch

TABLE A3
MINIMUM ANNUAL INSPECTION REQUIREMENTS BY CAB

Characteristic	Clause	Requirement	Verification method	Frequency
Design	8.1	End connectors	Dimensional	Sample from product family, covering all families within 5 year certification cycle
	8.2	Backflow protection	Visual inspection	
Dimensional Inspection	9.3.2	Water inlet	Clause 9.3.2	
Marking	6	Product marking, use of the WaterMark logo and license number	Visual inspection of marked product, relevant packaging and documentation	
Product documentation	11	Product data/Installation and maintenance instructions	Visual inspection of Installation instructions	

**TABLE A4
RE-EVALUATION TESTING**

Characteristic	Clause	Requirement	Test method
Design	8.1	End connectors	Dimensional
	8.2	Backflow protection	Design review
Performance	9.1 *	Products in contact with drinking water	AS/NZS 4020 or Clause 9.1
	9.2 *	Hose sets	AS/NZS 3499 or IEC 61770
	9.3.1	Structural Strength	Clause 9.3.1
	9.3.2	Water inlet	Clause 9.3.2
	9.4 *	Integral Thermostatic Valves	AS 4032.1 or AS 4032.4
	9.5 *	Showers	AS/NZS 3662
Product documentation	11	Product data/Installation and maintenance instructions	Product documentation

Note: * Re-evaluation testing only required at any change of design or material specification. Compliance can be deemed by compliance certificates.

Australian Building Codes Board

Building Australia's Future

Australian Building Codes Board
GPO Box 2013
Canberra ACT 2601
www.abcb.gov.au