



WMTS-459:2018

Waterless urinals

WaterMark Technical Specification

2018





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ATS 5200.459 – 2004 Technical Specification for Plumbing and Drainage Products
Waterless urinals – Wall-hung

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2014

IMPORTANT NOTICE AND DISCLAIMER

On 25 February 2013 management and administration of the WaterMark Certification Scheme transferred to the Australian Building Codes Board (ABCB). From this date all new technical specifications will be named WaterMark Technical Specifications (WMTS). Within two years all existing ATS will be renamed WMTS. During this initial period both terms may be used and accepted. All new and recertified Certificates of Conformity will reference WMTS. Certificates of Conformity that currently reference ATS will be re-issued referencing the equivalent WMTS during this initial period. The WaterMark Schedule of Specifications lists all current WMTS and, where appropriate, the former ATS name.

This Technical Specification supersedes Standards Australia ATS 5200.459 – 2004.

The rebranding of this Technical Specification has included additional information about the transition as well as changes to specific details including replacing references to Standards Australia and the National Plumbing Regulators Forum (NPRF) with the ABCB, changing the term Australian Technical Specification (ATS) to WaterMark Technical Specification (WMTS), replacing references to technical committees WS-014 and WS-031 with the WaterMark Technical Advisory Committee (WMTAC).

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PREFACE

Watermark Technical Specification WMTS-459: 2014 Technical Specification for plumbing and drainage products, Waterless urinals – Wall-hung was originally prepared by the Joint Standards Australia/Standards New Zealand Committee WS-031, Technical Procedures for Plumbing and Drainage Products Certification.

WaterMark Technical Specification WMTS-459:2018 Technical Specification for plumbing and drainage products, Waterless Urinals, incorporates a revision of materials to be used for manufacture of urinals.

The objective of this 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 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 Technical Specification to define the application of the appendices to which they apply. A 'normative' appendix is an integral part of a Technical Specification.

The test protocol and information in this Technical Specification was arranged by committee members to meet the authorization requirements given in the PCA.

The WaterMark Schedule of Specifications and List of Exempt Products are dynamic lists and change on a regular basis. Based on this function, these lists have been removed from the WaterMark Certification Scheme document known as Technical Specification for Plumbing and Drainage Products and are now located on the ABCB website (www.abcb.gov.au). These lists will be version controlled with appropriate historic references.



ACKNOWLEDGEMENTS

Australian Technical Specification ATS 5200.459 – 2004, on which this technical specification is based, was prepared by Standards Australia Committee WS-031, Technical Procedures for Plumbing and Drainage Products Certification. It was approved on behalf of the Council of Standards Australia 26 September 2003.

The following organisations were represented on Committee WS-031 in the preparation of Australian Technical Specification ATS 5200.459 – 2004.

- AUSTAP
- Australian Industry Group
- Certification Bodies (Australia)
- Copper Development Centre, Australia
- Fire Contractors Federation
- Master Plumbers, Gasfitters and Drainlayers New Zealand
- New Zealand Water and Waste Association
- Plastics Industry Pipe Association of Australia
- Plumbing Industry Commission
- South Australian Water Corporation
- Water Services Association of Australia

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1 SCOPE

This Technical Specification sets out requirements for the WaterMark certification of waterless urinals such as, wall hung and pedestal.

2 APPLICATION

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 Technical Specification can be demonstrated by a manufacturer for the purpose of product certification.

3 REFERENCED DOCUMENTS

AS

1976 Vitreous china used in sanitary appliances

AS/NZS

3500.0 Part 0: Glossary of terms

3500.2 Part 2. Sanitary plumbing and drainage

3982 Urinals

ANSI

Z124.9 Plastic urinal fixtures

ASTM

A240/A240M Chromium and chromium-nickel stainless steel plate, sheet and strip for pressure vessels and for general applications

4 DEFINITIONS

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

5 MATERIALS

5.1 Vitreous china

5.1.1 *Material*

Vitreous china shall comply with AS 1976.

5.1.2 *Thickness*

The thickness at any point of the urinal shall be not less than 6 mm.

5.1.3 *Surface finish*

All external surfaces, which are visible after installation, shall be glazed.

5.2 Plastic

Plastics shall comply with the requirements of ANSI Z124.9—1994.

5.3 Stainless steel

Stainless steel shall be a minimum nominal thickness of 0.9 mm and comply with ASTM A240/A240M Grade 304 or 316 (see Section 3 of AS/NZS 3982).

5.4 Vitreous Enamelled Steel

5.4.1 **Steel base material and construction**

Urinals shall be manufactured from cold-rolled unalloyed low carbon steel of minimum thickness 1.5mm. Urinals shall be formed by stamping, pressing or fabrication. Where welding is employed, the welding materials shall be compatible with the material to be welded. All welds shall be finished smooth without pitting or crevices

5.4.2 **Enamel coating**

Urinals shall be wholly enamelled on the inside and over the exposed rim with vitreous enamel. All other surfaces shall be fully coated with a corrosion-resistant bonding coat. The enamel shall not exhibit any defects that might be obvious to the user and be a site for initiation of corrosion of base steel.

6 MARKING

Waterless urinals shall be marked with the following:

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

- (c) Licence number.
- (d) Batch identification.
- (e) Model number.
- (f) The number of this Technical Specification, i.e., WMTS-459.

7 PACKAGING

VOID

8 DESIGN

VOID

9 PERFORMANCE REQUIREMENTS AND TEST METHODS

9.1 Strength test – Wall Hung Urinals

Wall Hung urinals shall comply with the strength test requirements of AS 3982.

9.2 Sanitary performance

Sanitary performance shall be in accordance with ANSI Z124.9.

10 TEST SEQUENCE AND TEST SAMPLE PLAN

VOID

11 PRODUCT DOCUMENTATION

11.1 General

Installation instructions shall be provided, which shall give full details of the installation procedure of the urinal, including the need for special tools or training. Care and maintenance instructions shall be provided and affixed to the urinal with the words 'May only be removed by occupant'.

11.2 Installation instructions

The installation instructions for waterless urinals shall include reference to installation in accordance with AS/NZS 3500.2. The instructions shall also draw attention to the requirement in AS/NZS 3500.2, that is—

'Prior to installing a waterless urinal to an existing system, the installer shall determine the materials of the pipes in the existing system.'



The undiluted discharge from a waterless urinal shall not be transported through copper or copper alloy pipework.

11.3 Operating and maintenance instructions

Operating instructions shall be provided, which shall include the following:

- (a) Method of cleaning.
- (b) Replacement of seals (where necessary).
- (c) Occupational health instructions, such as safety of equipment.
- (d) Essential requirements and precautions.
- (e) Other instructions, as necessary.

Appendix A MEANS FOR DEMONSTRATING COMPLIANCE WITH THIS PRODUCT 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 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 WaterMark 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

A 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.

A.5.4 Minimum annual inspection requirements

Table A3 sets out the minimum annual inspection requirements to be undertaken.

A.5.5 Re-evaluation testing

Table A4 sets out the requirements for re-evaluation testing.

Table A1

TYPE TESTS

Characteristic	Clause	Requirement	Test method	Frequency
Material properties (Vitreous China)	5.1.1	Material	AS 1976	Change of material
	5.1.2	Thickness	AS 3982	
	5.1.3	Surface finish	AS 3982	
Material properties (Composite)	5.2	Plastic	ANSI Z124.9 Clauses 3 & 5	
Material properties (Stainless steel)	5.3	Material grade and nominal thickness	ASTM A240/240M and measurement	
Markings	6	Clause 4	Marking proposal/Drawings	
Performance	9.1.1	Structural strength and integrity (vitreous china/stainless steel)	AS 3982	At any change in design
	9.1.2	Structural strength and integrity (plastic material)	ANSI Z124.9	
	9.2	Sanitary performance	ANSI Z124.9	
Product documentation	11.1	General	Documentation review	
	11.2	Installation procedures		
	11.3	Operating and maintenance instructions		



**Table A2
BATCH RELEASE TESTS**

Characteristic	Clause	Requirement	Test method	Frequency
Material properties (vitreous china)	5.1.1	Material	AS 1976	As per AS 1976
	5.1.2	Thickness	Direct measurement	Once per batch
	5.1.3	Surface finish	Visual	100%
Material properties (composite)	5.2	Surface finish ANSI Z124.9	Visual	100%
Material properties (stainless steel)	5.3	Material grade and nominal thickness	ASTM A240/240M and direct measurement	Once per batch
Markings	6	Markings	Visual examination	100%
Performance	9.3	Sanitary performance – Tightness test	ANSI Z124.9	Once per batch
Product documentation	11	Instructions for installation and maintenance	Visual	100%

**TABLE A3
MINIMUM ANNUAL INSPECTION REQUIREMENTS BY CAB**

Characteristic	Clause	Requirement	Verification method	Frequency
Markings	6	Clause 4	Marking proposal/Drawings	Each Inspection
Product documentation	11	Instructions for installation and maintenance	Visual	

**TABLE A4
RE-EVALUATION TESTING**

Characteristic	Clause	Requirement	Test method
Performance	9.3	Sanitary performance – Tightness test	ANSI Z124.9

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