

AS 3497:2021



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Drinking water treatment systems — Design and performance requirements



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AS 3497:2021

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The following are represented on Committee WS-027:

- Association of Accredited Certification Bodies
- Australian Building Codes Board
- Australian Filtration and Water Treatment Forum
- Australian Industry Group
- Consumers Federation of Australia
- Master Plumbers Association of NSW
- Master Plumbers Australia and New Zealand
- National Association of Testing Authorities, Australia
- Plumbing Products Industry Group

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Drinking water treatment systems — Design and performance requirements

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Preface

This Standard was prepared by the Australian members of the joint Standards Australia/Standards New Zealand Committee WS-027, Drinking Water Treatment Systems, to supersede AS/NZS 3497:1998, *Drinking water treatment units—Plumbing requirements*.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this document is to provide manufacturers with the minimum requirements for the design and testing of drinking water treatment systems. Test results from relevant NSF/ANSI Standards or other internationally recognized bodies will be accepted.

The major changes in this edition are as follows:

- (a) Update of definitions.
- (b) Clear recognition of NSF/ANSI standards for system performance.
- (c) Reference to AS/NZS 4020 for all system and component testing.
- (d) Filtration media to conform to NSF/ANSI/CAN 61.
- (e) Incorporation of WMTS 103-2016 to ensure all drinking water treatment systems are included in one standard. AS 3497 now includes all residential and commercial systems.

The terms “normative” and “informative” are used in Standards to define the application of the appendices to which they apply. A “normative” appendix is an integral part of a Standard, whereas an “informative” appendix is only for information and guidance.

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Section 1 Scope and general

1.1 Scope

This document specifies performance requirements for the design and performance testing of drinking water treatment systems designed for drinking water applications under Australian climatic conditions for verified and unverified claims made by the manufacturer or reseller of the drinking water treatment systems. Unverified claims may have no defined verification method. This document establishes minimum requirements for point-of-use (POU), point-of-entry (POE), and stand-alone drinking water treatment systems.

This document applies to drinking water treatment systems and cartridges (encapsulated or non-encapsulated) as a component or consumable of a drinking water treatment system.

This document excludes systems that add, inject or dose chemicals into the system.

NOTE These processes may include mechanical filtration or the reduction or treatment of microbiological, chemical (organic) or chemical (inorganic) compounds including taste, odour and colour contaminants. Water treatment systems may be effective in controlling one or more of these contaminants in combination.

1.2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document.

NOTE Documents referenced for informative purposes are listed in the Bibliography.

AS 1210, *Pressure vessels*

AS 1357.2, *Valves primarily for use in liquid water systems, Part 2: Control valves*

AS 1874, *Aluminium and aluminium alloys — Ingots and castings*

AS 2345, *Dezincification resistance of copper alloys*

AS 3558.5, *Methods of testing plastics and composite materials sanitary plumbing fixtures, Method 5: Determination of degradation by ultraviolet light*

AS/NZS 3707, *Method for testing pressure cycling resistance of pipes and fittings*

AS/NZS 3778, *Water supply — Tap ware*

AS/NZS 4158, *Thermal-bonded polymeric coatings on valves and fittings for water industry purposes*

AS/NZS 4120, *Testing of products for use in contact with drinking water*

NSF/ANSI 42, *Drinking water treatment units — Aesthetic effects*

NSF/ANSI 44, *Residential cation exchange water softeners*

NSF/ANSI 53, *Drinking water treatment units — Health effects*

NSF/ANSI 55, *Ultraviolet microbiological water treatment systems*

NSF/ANSI 58, *Reverse osmosis drinking water treatment systems*

NSF/ANSI/CAN 61, *Drinking water system components — Health effects*