AS 4032.4:2014

Water supply—Valves for the control of heated water supply temperatures

Part 4: Thermostatically controlled taps for the control of heated water supply temperatures

This Australian Standard® was prepared by Committee WS-026, Valves Primarily for Use in Warm and Hot Water Systems. It was approved on behalf of the Council of Standards Australia on 9 May 2014.
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The following are represented on Committee WS-026:

- Australian Chamber of Commerce and Industry
- Australian Industry Group
- Building Officials Institute of New Zealand
- Department of Health, South Australia
- Employers and Manufacturers Association
- Gas Appliance Manufacturers Association of Australia
- Institute of Hospital Engineering Australia
- Master Plumbers and Mechanical Services Association of Australia
- Master Plumbers Association of NSW
- Master Plumbers, Gasfitters and Drainlayers, New Zealand
- NSW Ministry of Health
- Plumbing Products Industry Group

This Standard was issued in draft form for comment as DR AS 4032.4.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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Australian Standard®

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee WS-026, Valves Primarily for Use in Warm and Hot Water Systems.

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

This Standard includes provision for electronically controlled valves and requirements for heated water shut-off performance.

This is a new Standard which forms Part 4 of a suite of Standards that cover products for the control of heated water temperatures, as follows:

AS		
4032	Water supply—Valves for the control of heated water supply temperatures	
4032.1	Part 1:	Thermostatic mixing valves—Materials design and performance requirements
4032.2	Part 2:	Tempering valves and end-of-line temperature-actuated devices
4032.3	Part 3:	Requirements for field testing, maintenance or replacement of thermostatic mixing valves, tempering valves and end-of-line temperature control devices
4032.4	Part 4:	Thermostatically controlled taps for the control of heated water supply temperatures

The objective of this Standard is to provide manufacturers, system designers, relevant authorities and others with performance requirements for thermostatic mixing taps, which provide a level of protection to users against exposure to high or excessive fluctuations in mixed water temperatures caused by variations, including shut-off, in the cold or heated water supply.

The term ‘normative’ has been used in this Standard to define the application of the appendix to which it applies. A ‘normative’ appendix is an integral part of a Standard.

Statements expressed in mandatory terms in notes to tables and figures are deemed to be requirements of this Standard.

This Standard necessarily deals with existing conditions, but is not intended to discourage innovation or to exclude material, equipment and methods that may be developed in the future. Revisions will be made from time to time in view of such developments, and amendments to this edition will be made only when absolutely necessary.

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies requirements for the design, construction, testing performance and means of compliance for thermostatic mixing taps—

(a) for use with heated water at a supply temperature not exceeding 90°C;

(b) for use with hot and cold water with working pressures not exceeding 1400 kPa; and

(c) of nominal sizes not larger than DN 20.

When used for ablutionary purposes, thermostatic mixing taps complying with this Standard provide the user with reasonable protection against scalding or excessive temperature fluctuations due to variations of pressures and temperatures of the hot and cold water supplies, including thermal shut-off.

NOTES:

1 Diagrams in this Standard are typical.

2 This Standard includes a method for assessing the flow performance of a thermostatic mixing tap but at the time of its publication this Standard is not referenced in AS/NZS 6400.

1.2 APPLICATION

The operating range of the tap shall be nominated by the manufacturer.

When adjusted to an outlet temperature not exceeding 45°C, thermostatic mixing taps are intended for use in health care, aged care, childcare, care for people with disabilities or any other similar at risk situations.

When adjusted to an outlet temperature not exceeding 50°C, thermostatic mixing taps may be used for other applications.

Means for demonstrating compliance with this Standard shall be as given in Appendix A.

1.3 REFERENCED DOCUMENTS

The following are the normative documents referenced in this Standard:

AS	
1199	Sampling procedures for inspection by attributes
1199.1	Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection
1432	Copper tubes for plumbing, gasfitting and drainage applications
1565	Copper and copper alloys—Ingots and castings
1572	Copper and copper alloys—Seamless tubes for engineering purposes