

Australian Standard™

**Authorization requirements for
plumbing products—Water heaters and
hot-water storage tanks**

STANDARDS
Australia



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The following are represented on Committee EL-020:

Australian Chamber of Commerce and Industry
Australian Electrical and Electronic Manufacturers Association
Australian Gas Association
Australian Industry Group
Australian Stainless Steel Development Association
Department of Industry Science and Resources (Australia)
Energy Efficiency and Conservation Authority of New Zealand
Gas Appliance Suppliers Association (New Zealand)
Heat Exchange Manufacturers Association (Australia)
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plumbing products—Water heaters and
hot-water storage tanks**

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PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee EL-020, Electric Water-heating Appliances, to supersede AS 3498—1995. 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.

This Standard incorporates Amendment No. 1 (September 2005). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

The objective of this Standard is to provide uniform requirements, which regulatory authorities may apply in Australia, for basic safety and public health issues resulting from the use of water heaters and hot-water storage tanks.

This edition is a major revision of the superseded edition, and incorporates the following significant changes:

- A1
- (a) Specifies that all heaters comply with the requirements of AS/NZS 4000.
 - (b) Creates a new classification for heaters that claim to deliver water not greater than 50°C. Such heaters are permanently marked with a warning label with internal temperature adjustment permanently disabled. To validate the performance of such heaters, new methods of tests to evaluate transient temperature spikes and to evaluate scalding are defined. Also included are a series of tests for proving the durability of such appliances.

Amendment No. 1 is issued to strengthen the intent of Section 7, Control and protection. The changes confirm hot water adjacent to any temperature and pressure relief valve (T&PRV) should not reach temperatures to cause the valve to operate thermally under normal operating conditions. The T&PRV is a safety device and should not be used as a control device.

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1 SCOPE

This Standard specifies basic safety and public health related requirements for water heaters and hot-water storage tanks that are intended for connection to a potable water supply, such as—

- (a) storage water heaters;
- (b) heat-exchange water heaters;
- (c) hot-water storage tanks with an external energy source;
- (d) instantaneous water heaters; and
- (e) boiling-water dispensers.

The Standard applies to water heaters using any type of heating, irrespective of the source of the heat energy imparted to the water, including electric resistance, gas, liquid or solid fuels, heat pumps, waste-heat recovery systems, solar energy or any other means of heating potable water.

In addition to the requirements of this Standard, additional requirements may be applicable for early childhood centres, primary and secondary schools and nursing homes or similar facilities for young, aged, sick or disabled persons, as described in AS/NZS 3500.4.2.

The Standard does not include requirements affecting the durability of water heaters, except those applying to safety devices. It does not apply to steam generators, sterilizers, washing machines, wash boilers, urns, kettles, or hot-water supply systems intended solely for space heating, swimming pools, spa pools or industrial processes.

NOTE: The installation of water heaters and hot-water supply systems is covered by AS 3500.4.1, AS/NZS 3500.4.2 and AS/NZS 3500.5.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS	
1357	Water supply—Valves for use with unvented water heaters
1357.1	Part 1: Protection valves
3500	National Plumbing and Drainage
3500.4	Part 4.1: Hot-water supply systems—Performance requirements
3680	Water supply—Copper and copper alloy body compression and capillary fittings and threaded-end connectors
4032	Water supply—Valves for the control of hot-water supply temperatures
4032.2	Part 2: Tempering valves and end of line temperature actuated devices
4552 (AG 102)	Gas water heaters
AS/NZS	
2712	Solar and heat pump water heaters—Design and construction
3500	National Plumbing and Drainage Code
3500.0	Part 0: Glossary of terms