

# Building and Plumbing Newsflash 586

## Clarification on the requirements for connecting plastic pipes to water heaters

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### Purpose

- To clarify the situations under which plastic water pipes can be directly connected to water heaters.
- To assist plumbing practitioners and inspectors to meet the compliance requirements for this type of plumbing work.

### Background

An issue has been identified concerning the requirements or restrictions on connecting plastic water pipes and fittings directly to the outlet of a water heater where the water heater has been factory pre-set to limit the delivered water temperature to 50°C. Temperature limited water heaters are typically instantaneous water heaters but can include a limited range of storage heaters. Temperature limited water heaters must conform to AS 3498.

At issue is a requirement of Australian Standard AS/NZS 3500.4 which provides a limitation on the use of plastic pipes at the outlet of a water heater. This requirement would result in the need to use an alternative pipe material like copper pipe and brass fittings rather than plastic pipes and fittings.

### Requirements

On 1 July 2019, the [Plumbing and Drainage Act 2018](#) (the Act) and the [Plumbing and Drainage Regulation 2019](#) took effect. The Plumbing Code of Australia (PCA) provides the code requirements for plumbing and drainage work. As a reference standard of the PCA, Australian Standards AS/NZS 3500, Part 4: 2018 provides Deemed to Satisfy Solutions for heated water service installations.

AS/NZS 3500.4:2018, clause 2.4.3 (d) specifies that plastic pipes and fittings shall not be used within 1 metre of the outlet of a water heater. However, clause 2.4.3 (d) is accompanied by an informative note which states that where a water heater is fitted with a temperature control valve, plastic pipes and fittings may be used immediately downstream of the temperature control valve.

While informative notes provided in Australian Standards are not mandatory requirements, they provide guidance about recommended technical considerations or procedures. In this case, the informative note following clause 2.4.3(d) suggests that plastic pipes can be fitted immediately downstream of a temperature control valve.

The PCA part B2.6 (2) states that the requirements for temperature control can be satisfied through the installation of a temperature control device. This extends to including the use of temperature limited water heaters, (a water heater preset to 50°C conforming to AS 3498) as a type of temperature control device.

### Application

The intent of the informative note associated with clause 2.4.3(d) has been interpreted to allow the connection of plastic pipe systems immediately downstream of a temperature control device. This



interpretation extends to allow plastic pipe systems to connect directly to the heated water outlet of a temperature limited water heater satisfying the deemed to satisfy provisions of both the PCA and AS/NZS 3500.

The above application does not override any requirements or limitations imposed through AS/NZS 3500 upon the use of plastic pipe systems in a heated water installation where subject to exposure to direct sunlight.

Practitioners when considering the information contained in this newsflash should also have regard to the Guideline [Requirements for installing temperature control devices](#) published under the Act which clarifies the circumstances where a temperature control device is required to be fitted to a heated water system installed in Queensland.

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