

Plastic pipes installed in association with solar water heaters

Plumbing Advisory Note

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Requirements

The *National Construction Code Series Volume Three, Plumbing Code of Australia (PCA)*, Part B2.0 specifically sets out requirements for the design, construction, installation, replacement, repair, alteration and maintenance of any part of a heated water service at a property that is connected to a drinking water supply, from the point of connection to the points of discharge.

AS/NZS 3500.1.2004 specifies the 'deemed to satisfy' documents listed in Part B2 of the PCA on heated water installations, including solar water heaters.

Plastic pipes are not to be installed between the isolation valve and the inlet to a water heater, particularly for a solar hot water system, in accordance with AS/NZS 3500:2003 Part 4 Heated Water Services Clause 2.4.3 (c).

Limitations on use of plastic pipes

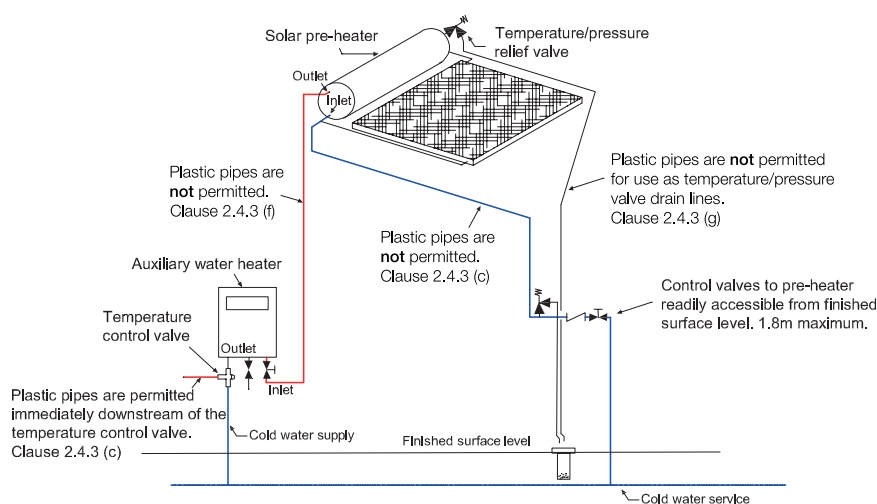
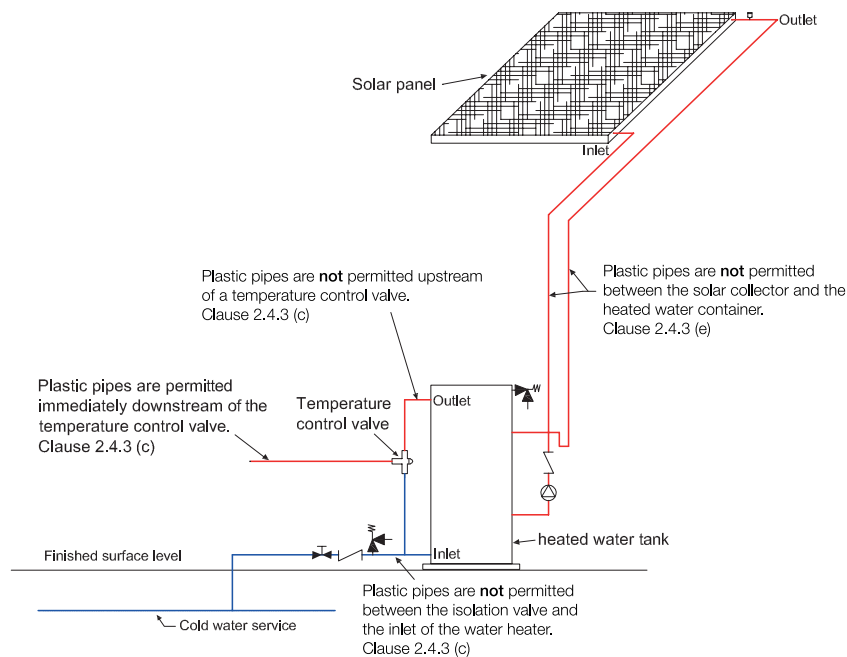
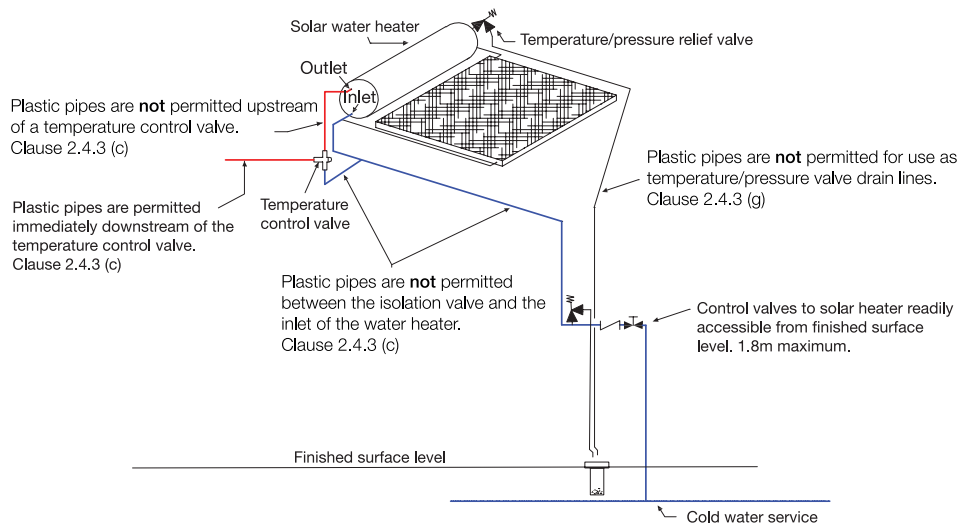
Plastic pipes:

- need to comply with the classes listed in Appendix C
 - polybutylene (PB) pipes and fittings in accordance with AS/NZS 2642.2 and AS/NZS 2642.3
 - cross-linked polyethylene (PE-X) pipes and fittings in accordance with AS 2492 and AS 2537
 - random polymer polypropylene (PP-R) pipes and fittings in accordance with DIN 8077

- macro-composite (PE-X-A1-PE-X) or (PE-A1-PE) pipes and fittings in accordance with AS 4176
- chlorinated polyvinyl chloride (PVC-C) fittings in accordance with ASTM D2846
- cannot be used within one metre of the outlet of a water heater, except where a water heater is fitted with a temperature control valve. In this case, plastic pipes and fittings may be used immediately downstream of the temperature control valve
- where subject to direct sunlight, shall be installed in accordance with the specific product installation standard.
- shall not be used to support isolation valves, non-return valves and equipment used to connect water heaters
- shall not be used between a solar collector and a heated water container, unless supplied by the manufacturer as an integral component of the solar water heater system
- shall not be used between an uncontrolled heat source and a heated water tank
- shall not be used for drain lines from temperature pressure relief valves.

Clause 5.9.3 (a) requires isolation valves to be positioned in a readily accessible position from the finished surface level.

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