

- [Home Home](#)
- [About this portal](#)
- [Latest updates](#)

  

[Save](#)

[Resource detail](#)  
[Citations](#)

## Acceptable Solution G12/AS2: Solar Water Heaters

[View on Information Provider website](#) [Download this resource \(PDF, 2.1MB\)](#)

This resource is no longer current. The current version is [G12/AS2 \(Third Edition, Amendment 12\)](#)

Abbreviation

G12/AS2

Amendment

11

Version

Third Edition, Amendment 11

Valid to

31/10/2019

Valid from

30/11/2018

---

Information provider

Ministry of Business, Innovation and Employment

Information type

Acceptable Solution

Format

PDF

---

Cites

[This resource cites 14 documents \(show Citations\)](#)

---

### Description

Acceptable Solution G12/AS2 provides a means of compliance with Building Code Clause G12 Water Supplies for solar water heaters. G12 requires the safe supply, storage, reticulation and delivery of hot and cold water.

It requires buildings provided with water outlets, sanitary fixtures or sanitary appliances to have safe and adequate water supplies (including where hot water is necessary). It sets out requirements to avoid scalding, injury, leaks, contamination, illness and the prevention of legionella growth.

### Scope

This Acceptable Solution applies to solar water heaters installed in or on buildings.

### Previous versions:

[G12/AS2 \(Third Edition, Amendment 10\)](#)

[G12/AS2 \(Third Edition, Amendment 9\)](#)

[G12/AS2 \(Third Edition, Amendment 8\)](#)

## [G12/AS2 \(Third Edition, Amendment 7\)](#)

For assistance with locating previous versions, please contact the information provider.

### Notes/comments

This Amendment includes Alterations on:

- page 10 References

Table of Contents

[View on Information Provider website](#) [Download this resource \(PDF, 2.1MB\)](#)

{{ linkText }}

Previous versions

[G12/AS2 Amendment 10 Third Edition, Amendment 10](#)

[G12/AS2 Amendment 9 Third Edition, Amendment 9](#)

[G12/AS2 Amendment 8 Third Edition, Amendment 8](#)

[G12/AS2 Amendment 7 Third Edition, Amendment 7](#)

For assistance with locating previous versions, please contact the information provider.

This Amendment includes Alterations on:

- page 10 References

This resource is not cited by any other resources.

## Acceptable Solution G12/AS2: Solar Water Heaters

This document is not CITED BY any other resources:

Back

## Acceptable Solution G12/AS2: Solar Water Heaters

Show what documents this resource is CITED BY

Show what documents this resource CITES

### Description

Acceptable Solution G12/AS2 provides a means of compliance with Building Code Clause G12 Water Supplies for solar water heaters. G12 requires the safe supply, storage, reticulation and delivery of hot and cold water.

It requires buildings provided with water outlets, sanitary fixtures or sanitary appliances to have safe and adequate water supplies (including where hot water is necessary). It sets out requirements to avoid scalding, injury, leaks, contamination, illness and the prevention of legionella growth.

[View on Information Provider website](#) [Download this resource \(PDF, 2.1MB\)](#)

### [Acceptable Solution G12/AS2: Solar Water Heaters](#)

This resource is no longer current. The current version is [G12/AS2 \(Third Edition, Amendment 12\)](#)

### Description

Acceptable Solution G12/AS2 provides a means of compliance with Building Code Clause G12 Water Supplies for solar water heaters. G12 requires the safe supply, storage, reticulation and delivery of hot and cold water.

It requires buildings provided with water outlets, sanitary fixtures or sanitary appliances to have safe and adequate water supplies (including where hot water is necessary). It sets out requirements to avoid scalding, injury, leaks, contamination, illness and the prevention of legionella growth.

**This resource cites:**

## **Acceptable Solution G12/AS2: Solar Water Heaters**

**This document CITES:**

**New Zealand Standards**

- [AS/NZS 1170.0:2002](#)

G12/AS2 cites AS/NZS 1170.0:2002 Structural Design Actions - General principles from 01/12/2007

- [AS/NZS 1170.1:2002](#)

G12/AS2 cites AS/NZS 1170.1:2002 (R2016) Structural Design Actions - Permanent, imposed and other actions from 01/12/2007

- [AS/NZS 1170.2:2011](#)

G12/AS2 cites AS/NZS 1170.2:2011 (R2016) Structural Design Actions - Wind Actions from 01/01/2017

- [AS/NZS 1170.3:2003 \(Reconfirmed in 2016\)](#)

G12/AS2 cites AS/NZS 1170.3:2003 (R2016) Structural Design Actions - Snow and ice actions from 01/12/2007

- [AS/NZS 2712:2007](#)

G12/AS2 cites AS/NZS 2712:2007 Solar and heat pump water heaters - Design and construction from 01/12/2007

- [AS/NZS 3500.4:2015](#)

G12/AS2 cites AS/NZS 3500.4:2015 Plumbing and drainage - Heated water services from 01/01/2017 until 31/10/2019

- [AS/NZS 4692.2:2005](#)

G12/AS2 cites AS/NZS 4692.2:2005 (R2016) Electric water heaters - Minimum Energy Performance Standards (MEPS) requirements and energy labelling from 01/12/2007

- [NZS 1170.5:2004](#)

G12/AS2 cites NZS 1170.5:2004 Structural Design Actions - Part 5: Earthquake design actions - New Zealand from 01/12/2007

- [NZS 3604:1990](#)

G12/AS2 cites NZS 3604:1990 Code of practice for light timber frame buildings not requiring specific design from 01/12/2007

- [NZS 3604:1999](#)

G12/AS2 cites NZS 3604:1999 Timber framed buildings from 01/12/2007

- [NZS 3604:2011](#)

G12/AS2 cites NZS 3604:2011 Timber-framed buildings from 10/10/2011

- [NZS 4203:1992](#)

G12/AS2 cites NZS 4203:1992 General structural design and design loadings for buildings from 01/12/2007

- [NZS 4613:1986](#)

G12/AS2 cites NZS 4613:1986 Domestic solar water heaters from 01/12/2007

- [NZS 4614:1986](#)

Back

Close

Table of Contents

**References**

**Definitions**

**Verification Method G12/VM1**

**1.0 Water Supply System**

**Acceptable Solution G12/AS1**

**1.0 Scope**

**2.0 Materials**

**2.1 Water quality**

**2.2 Pipe materials**

**3.0 Protection of Potable Water**

**3.1 Drawn water not to be returned**

**3.2 Cross connections prohibited**

**3.3 Cross connection hazard**

**3.4 Backflow protection**

**3.5 Air gap**

**3.6 Backflow prevention devices**

**3.7 Testing**

**4.0 Non-potable Supply**

**4.1 Protection of non-potable water supplies**

**4.2 Outlet identification**

**4.3 Pipeline identification**

**5.0 Water Supply**

**5.1 Water tanks**

**5.2 Water tank installation**

## **5.3 Water pipe size**

## **5.4 Maintenance facilities**

# **6.0 Hot Water Supply System**

## **6.1 Water heaters**

## **6.2 Water supply to storage water heaters**

## **6.3 Operating devices**

## **6.4 Safety devices**

## **6.5 Temperature control devices**

## **6.6 Relief valves**

## **6.7 Relief valve drains**

## **6.8 Vent pipes**

## **6.9 Alternative acceptable solutions for the installation of open vented storage water heaters**

## **6.10 Alternative acceptable solutions for the installation of unvented (valve vented) storage water heaters**

## **6.11 Water heater installation**

## **6.12 Hot water pipe sizes**

## **6.13 Wet-back water heaters**

## **6.14 Safe water temperatures**

## **6.15 Solar water heaters**

# **7.0 Installation Methods**

## **7.1 Pipe supports**

## **7.2 Protection from freezing**

## **7.3 Protection from damage**

## **7.4 Installation of uPVC pipes**

## **7.5 Watertightness**

# **8.0 Usable Facilities for People with Disabilities**

# **9.0 Equipotential Bonding**

## **9.1 General**

## **9.2 Installation of equipotential bonding conductors**

## **9.3 Earth bonding conductors**

## **Acceptable Solution G12/AS2**

### **1.0 Scope**

#### **1.1 Structural support limitations**

#### **1.2 Exclusions**

### **2.0 Materials**

#### **2.1 Material selection**

### **3.0 Solar Water Heater Requirements**

#### **3.1 Solar water heaters and components**

#### **3.2 Solar controller**

#### **3.3 Sizing of systems**

#### **3.4 Operating and safety devices**

#### **3.5 Protection from Legionella bacteria**

#### **3.6 Protection from frosts**

### **4.0 Location of Solar Water Heaters**

#### **4.1 Location**

#### **4.2 Solar orientation and inclination**

### **5.0 Installation of Solar Water Heaters**

#### **5.1 Wetback water heaters**

#### **5.2 Weathertightness**

#### **5.3 Pipe installation**

#### **5.4 Pipe insulation**

### **6.0 Structural Support for Solar Water Heaters**

#### **6.1 Scope**

#### **6.2 General requirements**

## 6.3 Direct fixed solar collectors parallel to the roof

## 6.4 Elevated solar collectors parallel to the roof

## 6.5 Collector support rails

## 6.6 Mounting collectors at a different pitch to the roof cladding

## 7.0 Maintenance and Durability

### 7.1 Maintenance

### 7.2 Durability

## Index

Print Save Email

[Feedback](#)


- [Contact us](#)
- [Privacy policy](#)
- [Disclaimer](#)
- [Copyright](#)


[Feedback](#)