

UK Building Regulations 2010 – Part L Building Services Compliance Guide

The above document contains, *inter alia*, the following Guidance in tabulated form;

Section 2: Gas-fired Space Heating and Hot Water Systems

Table 1 – Gas-Fired Wet Systems

Part 4.0 - System preparation and water treatment

New systems

- a. Central heating systems should be thoroughly cleaned and flushed out before installing a new boiler.
- b. During final filling of the system, a chemical water treatment inhibitor meeting the manufacturer's specification or other appropriate standard should be added to the primary circuit to control corrosion and the formation of scale and sludge.
- c. Installers should also refer to the boiler manufacturer's installation instructions for appropriate treatment products and special requirements for individual boiler models.
- d. Where the mains total water hardness exceeds 200 parts per million, provisions should be made to treat the feed water to water heaters and the hot water circuit of combination boilers to reduce the rate of accumulation of limescale.

Replacement systems

- a. As for *new systems*.

The following supplementary information is provided in Table 1 to provide a recommended route to compliance with the UK Building Regulations Part L;

Supplementary information in Table 1 – Part 4

- **Lime scale can be controlled by the use of**
 - *chemical lime scale inhibitors,*
 - *combined corrosion and lime scale inhibitors,*
 - *polyphosphate dosing,*
 - **electrolytic scale reducers**
 - *or water softeners.*
- *The relevant Standard for water treatment is BS 7593:2006 "Code of practice for treatment of water in domestic hot water central heating systems". BS7593 notes that soft water has an increased potential for corrosion and this may influence the choice of corrosion inhibitor. Where water is artificially softened it is advisable to feed un-softened water to the drinking water taps, but also to the boiler primary circuit. In soft water areas, the boiler manufacturer should be consulted for advice.*
- *Inhibitors should as a minimum be BuildCert approved.*

It is advisable to install valves which will isolate both the radiators and the heating circuit when removing radiators for service or maintenance. Avoiding the need to drain down the system will help to retain the circulating fluid and prevent loss of water treatment.

Section 3: Oil-fired Space Heating and Hot Water Systems

4.0 System preparation and water treatment

Table 9 – Oil-Fired Wet Systems

Part 4.0 - System preparation and water treatment

New systems

- a. Central heating systems should be thoroughly cleaned and flushed out before installing a new boiler.
- b. During final filling of the system, a chemical water treatment inhibitor meeting the manufacturer's specification or other appropriate standard should be added to the primary circuit to control corrosion and the formation of scale and sludge.
- c. Installers should also refer to the boiler manufacturer's installation instructions for appropriate treatment products and special requirements for individual boiler models.
- d. Where the mains total water hardness exceeds 200 parts per million, provisions should be made to treat the feed water to water heaters and the hot water circuit of combination boilers to reduce the rate of accumulation of limescale.
- e. For solar thermal systems, see Section 10.

Replacement systems

- a. As for *new systems*.

The following supplementary information is provided in Table 1 to provide a recommended route to compliance with the UK Building Regulations Part L;

Supplementary information in Table 1 – Part 4

- ***Limescale can be controlled by the use of chemical limescale inhibitors, combined corrosion and limescale inhibitors, polyphosphate dosing, electrolytic scale reducers or water softeners.***
- *The relevant Standard for water treatment is BS 7593:2006 "Code of practice for treatment of water in domestic hot water central heating systems". BS7593 notes that soft water has an increased potential for corrosion and this may influence the choice of corrosion inhibitor. Where water is artificially softened it is advisable to feed un-softened water to the drinking water taps, but also to the boiler primary circuit. In soft water areas, the boiler manufacturer should be consulted for advice.*
- *Inhibitors should as a minimum be BuildCert approved.*