

Water treatment

Understanding water treatment best practice







From radiator pinholes or cold spots to sticking pumps or blocked heat exchangers, you don't need us to tell you that a whole variety of issues can affect central heating systems.

Although these symptoms are different and can appear in different types of system (old or new), they have two things in common:

- · they can be caused by corrosion or limescale
- · they are avoidable with appropriate water treatment

Benefits of quality water treatment for heating engineers:

- Reduced number of callbacks to failed systems
- Reputation for reliable installations
- Easily meet criteria for extended warranty provision
- Compliance with industry best practice
- Add-on sales

Legislation and standards

Part and parcel of learning a trade is getting to grips with its legislation, documentation and recommended best practices. To help, we've pulled together some key points around water treatment

from across the heating industry.

All systems must be thoroughly cleaned and flushed out before installing a new boiler

During the final filling of the system, a chemical inhibitor meeting the manufacturer's specification or other appropriate standard (BuildCert) should be added

Domestic Building Services Compliance Guide to Part L of the UK Building Regulations*

Government publication that provides guidance on the installation of building services in new and existing properties to assist in complying with the energy efficiency requirements of the Building Regulations

Where water
hardness exceeds 200
ppm, steps should be
taken to treat the feed
water to water heaters and
the hot water circuit of
combination boilers

To view the full compliance guide search online for Domestic Building Service Compliance Guide.

^{*} L1A Conservation of Fuel & Power in New Dwellings & L1B Conservation of Fuel & Power in Existing Dwellings

Covers the methodology for water treatment and cleaning using various techniques including gravity, mains pressure flush, and power flushing

British Standard EN 7593:2006

The code of practice for treatment of water in domestic hot water central heating systems

Gives recommendations for preparation and ongoing water treatment to ensure continued efficiency in operation

Domestic Water
Treatment Association
(DWTA) Codes of Practice
gives similar guidance,
not including mains
pressure cleaning

Energy Related Products (ErP)

The Energy Related Products Directive (ErP) supports the Ecodesign Directive that is driving the development of energy efficient components and products. Under the Energy Labelling Directive, certain heating and hot water systems will be required to carry energy labelling.



EXTEND SYSTEM LIFE

Clean, Protect and Maintain to help prevent system failure and fight sludge build-up

Treat it with Sentinel

- Homeowners will be more aware than ever of the energy efficiency of their boiler and heating system components due to the Energy Labelling Directive.
- More high efficiency products will be available on the market due to the Ecodesign Directive.
- Protecting the high efficiency components of the heating system with quality water treatment will help to maintain the established efficiency of the system.

For further guidance on ErP many major boiler manufacturers such as Baxi, Ideal, Vaillant and Worcester Bosch have a range of helpful material.

The Sentinel System

Lifetime protection for heating and hot water systems with the best practice process of Clean, Protect and Maintain.



Clean

to prepare for greater performance

Cleaning a new system will remove any installation debris and flux residues which, if left inside the system, will cause corrosion. Cleaning an old system will remove sludge build-up, improving the efficiency of the system and minimising the circulating debris that enters a retrofitted boiler.



Protect

to prolong system life and efficiency

After cleaning, it is important to protect your system from returning scale, corrosion and sludge build-up.



Maintain

to ensure durable protection

Many factors can reduce the level of protection of a central heating system, for instance system water losses by the removal of a radiator whilst decorating. We therefore advise checking the quality of water and level of protection annually.







Sentinel Performance Solutions Ltd

7650 Daresbury Park, Warrington, Cheshire, WA4 4BS, United Kingdom.

Tel: +44 (0) 1928 704 330 www.sentinelprotects.com



