

**Love your boiler**  
**Love your system**



**Glow•worm**

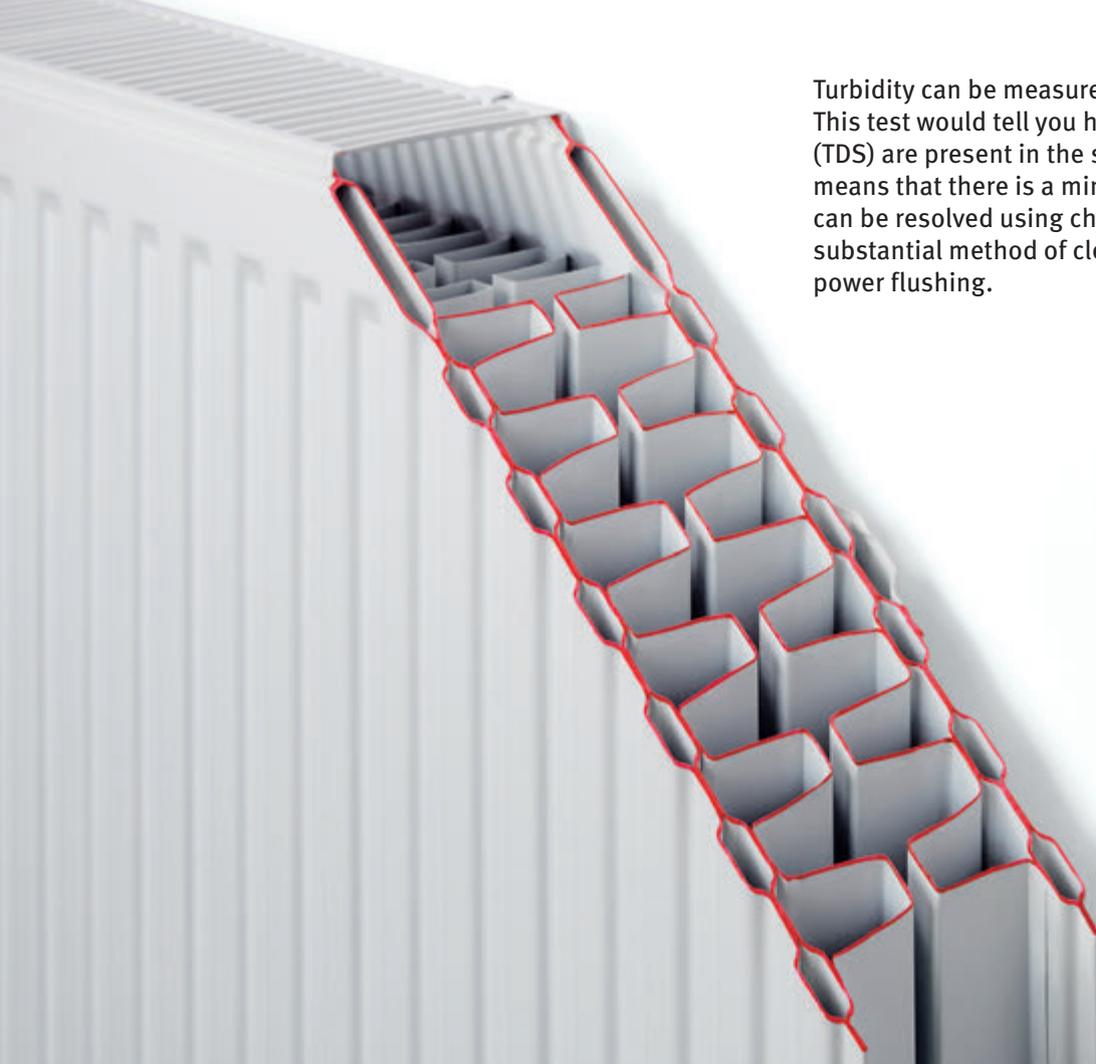


Legislation states that any brand new or replacement heating system is to be chemically cleaned, and the filled system to be treated with chemical inhibitor to prevent corrosion and scale. The British Standard that outlines the requirements of the above is BS7593:2006. Further information can be found in the Domestic Building Services Compiiances Guide or the Domestic Chemical Water Treatment Manufacturers Association (DWTA) document, both of which are free to download.



The best way to check the quality of the system water is to test turbidity, pH and water hardness.

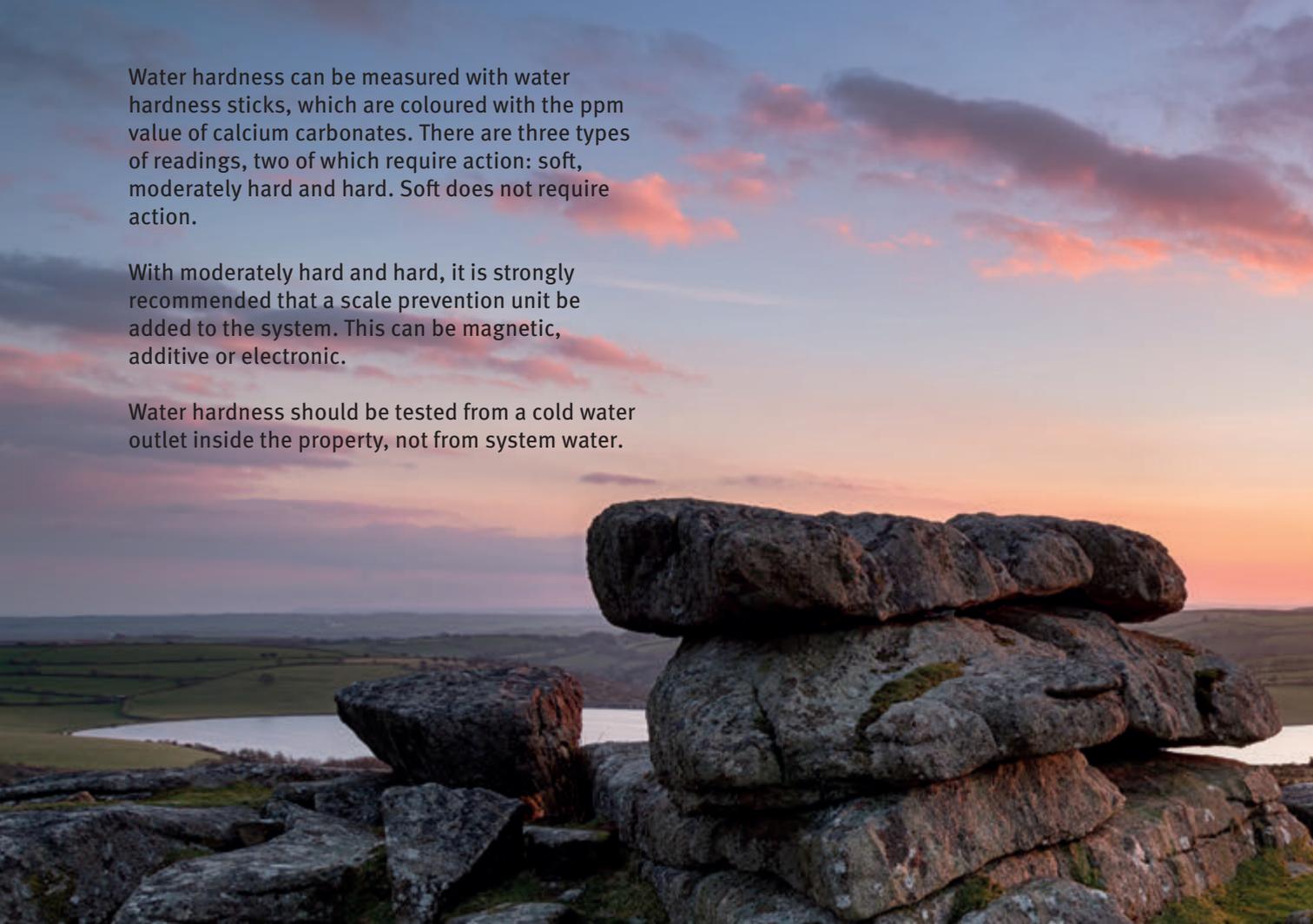
Turbidity can be measured using a turbidity tube. This test would tell you how many Total Diluted Solids (TDS) are present in the system. A level of  $<20\text{ppm}$  means that there is a minor contamination which can be resolved using chemicals. At  $>20\text{ppm}$  a more substantial method of cleaning is required, such as power flushing.



Water hardness can be measured with water hardness sticks, which are coloured with the ppm value of calcium carbonates. There are three types of readings, two of which require action: soft, moderately hard and hard. Soft does not require action.

With moderately hard and hard, it is strongly recommended that a scale prevention unit be added to the system. This can be magnetic, additive or electronic.

Water hardness should be tested from a cold water outlet inside the property, not from system water.



A normal part of the annual service of a boiler is to drain the boiler and check the pressure of the expansion vessel. During this process, the water that was drained can be used to carry out system quality checks, including the level of inhibitor that is currently in the system.

It is important to carry out annual inspections as poor water quality can void a warranty or guarantee.



pH is measured with colour pH sticks or with an electronic reader. Readings of  $<7.0$  indicate acidity, and readings of  $>7.0$  indicate alkalinity. A good reading would be between 6.5 and 8.5. If the system water is too acidic then the metals throughout the system are in danger of corroding. If the water within the system is too alkaline, then there is a higher risk of electrolysis.





The information gathered from the system quality checks will tell you what preventative measures may be required to ensure the longevity of the installation and system.

Best practice is to power flush the system during boiler replacements. Alternatively, if the system only has very light contamination, it would be best to perform an early site visit during which you could take a water sample, and use the existing boiler and/or pump to run chemicals through the system for two weeks before the new appliance is installed.



# Glow-worm

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