

1 Water hardness and limescale



Hard water naturally contains calcium and magnesium minerals. Much of our water is taken from underground boreholes in limestone or chalk rocks, which tends to be naturally hard.

Limescale is a natural result of hard water. It is not harmful to your health but it can cause appearance and maintenance issues.

Hard water is completely safe to drink. However, it can leave limescale deposits which might affect the appearance and performance of your household appliances.

Is our water hard?

As many of our water sources are naturally hard, we soften the water slightly as part of the water treatment process. Some supplies are naturally softer and do not require further treatment. This is due to the different geologies in our catchment area; the hardness of your water supply will depend on where you live.

How hard is my water?

To know how hard the water is in your area, go to the 'Your water quality' section on our website www.seswater.co.uk/WQ and use the postcode search facility within the 'Your water quality report' section. This will help you know how to set water hardness settings for appliances such as dishwashers.

Your local report shows the average hardness of your water supply, see the 'Supply Zone' report. Water hardness is measured as mg/l Ca (milligrams per

litre, or parts per million of calcium). Total hardness can also be expressed in other units of measurement and these may be specified by dishwasher manufacturers.

Alternatively, contact our Customer Services team for information.

Is hardness harmful to health?

Hard water is safe to drink. We are not allowed to remove all the hardness from the water as evidence suggests that drinking hard water may have health benefits, including possible protection against cardiovascular disease.

What effects will hardness have in the home?

As hardwater contains minerals, some limescale may form in your home. This is normal and harmless.

Limescale can normally be seen as white, flakelike particles that can build-up in pipes, on fittings and in kettles. The flakes can also appear blue/green or pink if small amounts of plumbing metals such as copper and iron are also present.

Limescale may also leave a white film on surfaces such as draining boards and glassware.

Hardness in water can react with the natural tannins in tea and coffee, resulting in an oily-looking film on hot drinks and a brown stain in cups or mugs.

Hardness can also appear as white particles in ice cubes and as a film on glasses of cordial.

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Hard water requires the use of more soap and detergents to produce the same amount of froth or foam as soft water.

If water is too soft, it can be corrosive to pipework, but hard water actually creates an internal protective film on lead and copper pipes, which prevents these metals leaching into your drinking water.

Minimising scale formation

If scale becomes a problem there are a number of simple measures you can take, details of which can be found below.

In the kitchen:

Kettles

In metal kettles hardness can cause a scale or fur layer to develop. Boiling fresh water each time, rather than re-boiling water, can help to minimise scale.

A stainless steel wire scale collector placed in your kettle can also help to reduce scaling.

Regular removal of scale can be achieved naturally, for example by using vinegar.

Always follow the manufacturer's instructions when using commercial limescale removers.

In plastic kettles the limescale may not stick to the sides but float on the surface of the water.

Regularly rinsing plastic kettles will help to reduce the amount of this type of scale.

Draining boards

Regularly wiping the sink area down helps to minimise the formation of white spots or a film.

Glassware

Hand-drying items, rather than leaving them to dry naturally, can help to minimise the formation of a white film.

In the bathroom:

Sinks and baths

Regularly drying sinks, baths and taps helps prevent limescale build-up.

Natural soap and hard water together can produce a scum which sticks to the sides of sanitaryware.

Removing this scum with an ordinary liquid cleaner as soon as possible is recommended, because the scum hardens and becomes more difficult to remove once it is dry.

Taps

The regular wiping down and cleaning of taps with an ordinary domestic cleaning product, available in supermarkets and hardware stores, should help to minimise scale.

Toilets

Limescale build-up in a toilet pan can be removed using a limescale remover. If the problem persists, an acidic-type cleaner may be required.

Do not mix the different types of remover.

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In immersion heaters:

Reducing the temperature of your hot water can decrease scale deposition in pipework. This also helps to save energy and reduce power costs.

The ideal setting is 60°C. It is important that the water in the cylinder is this hot as bacteria can grow at temperatures lower than this.

In conjunction with advice from a qualified plumber, some customers can choose to use a chemical scale inhibitor or a special sheath to help protect heating elements.

Domestic water softeners

Water softeners are optional. Installing one is a matter of personal preference rather than a health requirement.

Water that has been filtered using a carbon and ion exchange resin jug filter is less likely to form scale in a kettle and a film on hot drinks.

Many in-line water softeners work by replacing the calcium and magnesium minerals with sodium.

Too much sodium in the diet can cause health problems, especially in babies and for customers on low sodium diets.

Water softened in this way may also be more corrosive to pipes.

Should you decide to install an in-line water softener, it should be ensured that water used for drinking, cooking and the making up of babies' bottles is not softened.

For any filter used, both the operating

and maintenance instructions should be properly followed to help prevent it becoming a hygiene hazard.

It is advised that a qualified WaterSafe Approved plumber is used to ensure any inline water softening device is installed correctly. A list of plumbers can be found on the WaterSafe website, watersafe.org.uk

Other processes such as use of a magnetic conditioner can also be used to provide a softened water supply.

The softening processes we use do not involve the addition of sodium and so our drinking water supply is safe to use for drinking and cooking.

Advice on domestic softeners

We do not test softening devices for use in the home and therefore cannot recommend any particular process or device. The decision to install devices to soften the water in the home is down to the individual customer.

For further advice and top tips, check out the water industry guide 'Looking after water in your home'. Download at: www.seswater.co.uk/WaterInYourHome Advice on water softeners may be found on page 15 of this guide.

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