

## Should I use a water softener?

This is a matter of personal choice. If you live in a hard water area then a softener will improve the efficiency and increase the life of domestic appliances. It will make lathering easier and reduce tide marks on sanitary ware. There are a number of water softeners and water conditioners on the market that can reduce the hardness of the water – they each have their own advantages and disadvantages.



### Water Softeners

Reduce the problem of limescale build up in non-drinking water appliances by using an additive to remove the minerals which produce the limescale before entering your plumbing system.

### Electronic Descalers

Work by changing the structure of the minerals present in the water so that they don't adhere to internal surfaces of appliances or to your taps, baths, sinks and showers etc. If you do install a water softener, it is very important that you make sure that it is correctly installed. It is also recommended that you have a separate unsoftened mains fed tap for drinking water.

Further information can be found reputable supplier, for example, one that is a member of British Water.

[www.britishwater.co.uk](http://www.britishwater.co.uk)

[www.wras.co.uk/consumers\\_approvedplumberscheme](http://www.wras.co.uk/consumers_approvedplumberscheme)

It is also advisable to put in place a maintenance contract to avoid the softener becoming a hygienic hazard.

## Contact us...

For more information on water quality please visit [www.portsmouthwater.co.uk/about-us/water-quality](http://www.portsmouthwater.co.uk/about-us/water-quality)

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**Need an approved plumber?**



**www.watersafe.org.uk**

## Water Quality

# Water Hardness & Limescale

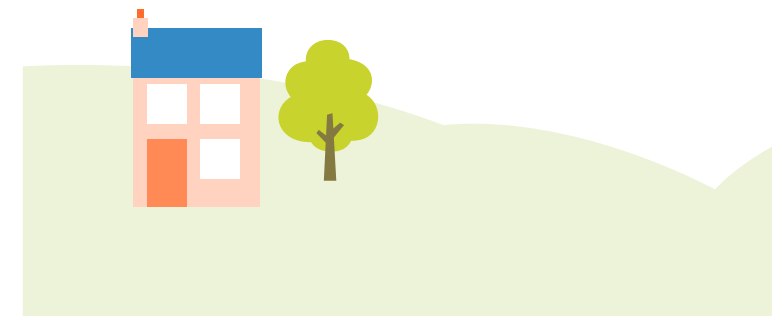
## in the home

Rain water is naturally soft but once it falls on the ground and percolates through rocks it picks up natural hardness minerals, such as calcium and magnesium.

Our water is mainly derived from the chalk of the South Downs – it is excellent quality, but its chalk source means that it is moderately hard.

Hard water is perfectly safe and there is lots of evidence that it can even be good for our health.

**This leaflet will provide some practical advice to help manage hard water in your home.**





## How hard is my water?

Sometimes it can be important to know the exact water hardness in your area, particularly if you are purchasing new household appliances such as a dishwasher or washing machine.

The following table shows the normal ranges of hardness:

HARDNESS LEVELS	Moderately Soft	Slightly Hard	Moderately Hard	Hard	Very Hard
mg/l CaCO <sub>3</sub> ppm CaCO <sub>3</sub>	51 - 100	101 - 150	151 - 200	201 - 300	Over 300
English Clarkes	3.6 - 7	7.1 - 10.5	10.6 - 14	14.1 - 21	Over 21
German dH	2.81 - 5.6	5.7 - 8.4	8.5 - 11.2	11.3 - 16.8	Over 16.8
French TF	6 - 10	11 - 15	16 - 20	21 - 30	Over 30
mg/l Calcium	21 - 40	41 - 60	61 - 80	81 - 120	Over 120
mmol/l Alk Earths	0.495 - 0.99	1 - 1.485	1.486 - 1.98	2 - 2.97	Over 2.97

The water hardness values for the Portsmouth Water area can be found on our website at

[www.portsmouthwater.co.uk/about-us/water-quality](http://www.portsmouthwater.co.uk/about-us/water-quality)

## How does hard water affect me?

Hard water causes scaling in hot water systems, kettles, electric irons and domestic appliances. Scaling of heating elements shortens their life and makes appliances less efficient.

Hard water produces less lather from soap, washing up liquid and washing powders. It also leaves 'tide marks' on basins, sinks, baths and toilets and a scum on the surface of hot drinks, especially tea brewed in the cup with a teabag (due to the air and oil in the tea).



## Top tips washing machines

- **Run maintenance washes periodically with commercial limescale removers**

These products are placed in the machine without clothes present and run on a normal washing cycle.



## Top tips scum on cups of tea or coffee

- **Make tea in a pot rather than a mug**
- **Use a kettle or teapot with a spout at the bottom**
- **Add milk to your cup first (whole milk produces more scum than semi-skimmed milk)**
- **Use tea leaves instead of tea bags**
- **Don't let tea 'stew'**



## Top tips kettles

- **Always rinse and empty your kettle before use**  
This will remove particles and reduce limescale build-up
- **Clean out your kettle regularly**  
Be careful not to damage the element – a small amount of limescale will not hurt the element, providing water is free to circulate around it.
- **Remove limescale with all-purpose descaler**  
Appliance descalers are quick acting, easy to use and very effective. Apart from removing the scale the performance of the appliance will improve.
- **Plastic kettles**  
In new plastic kettles you may get cloudy water as the limescale doesn't stick to the plastic. You may also get a film floating on the surface where the limescale remains in the water – this is perfectly safe to drink.



## Top tips steam irons

- **Use de-ionised, distilled or de-mineralised water**  
You can get this from most supermarkets, alternatively use cooled boiled water in your iron.
- **Use a descaler solution**  
Descal your iron on a regular basis following the manufacturer's instructions.



## Top tips dishwashers

- **Use manufacturer's instructions**  
Most dishwashers have built-in water softeners to prevent scaling – check your manual for advice.

## Limescale deposits

When water evaporates it may leave some limescale deposits – here are some tips to help reduce them.

## Top tips showers, baths, sinks & toilets

- **Wipe down and dry internal surfaces immediately after use**  
This will help remove deposits and reduce limescale build-up.
- **Clean with a liquid cleaner**  
Regularly clean with a proprietary cleaner – take care with abrasive cleaners as they may scratch plastic and enamel surfaces.
- **Use an all-purpose limescale remover**  
Limescale removers are quick acting, easy to use and very effective.
- **Remove scum immediately**  
Clean scum from sinks and baths while it is still warm.
- **Make sure your taps do not drip**  
Dripping taps can cause limescale to build up in the tap spout as well as leaving stains in sinks and baths.