



# Water hardness

Northumbrian Water is responsible for supplying a reliable source of safe, clean, drinking water. The majority of the company supply area is soft to slightly hard.

## Why some water is hard

If your water comes from underground limestone or chalk rocks, or contains a proportion of groundwater, then the chances are that it is hard. The hardness is caused by the presence of minerals dissolved from the ground and rocks by the water.

Northumbrian Water is compliant with the appropriate regulations and has no plans to introduce softening to hard water areas. Please find below a PDF document of the water hardness for the Northumbrian Water area, along with the measurement of hardness in degrees Clarke, for use with dishwashers and washing machines.

You can check out how hard the water is in your area here by viewing the hardness zones.

Description	Hardness in mg/l as calcium (mg/l Ca)	Hardness in mg/l as calcium carbonate (mg/l CaCO <sub>3</sub> )
Soft	0 - 20	0 - 50
Moderately soft	20 - 40	50 - 100
Slightly hard	40 - 60	100 - 150
Moderately hard	60 - 80	150 - 200
Hard	80 - 120	200 - 300
Very hard	Over 120	Over 300

## What does this mean for my appliances?

If your water is hard you will notice that your kettle and other water heating appliances become furred up with a white scale. You may also find this scale in your bath, sink and shower. It isn't harmful but can be a bit of a nuisance. Hard water can also affect appliances like washing machines, dishwashers and steam irons.

If you are installing a new dishwasher, your plumber may ask you for the hardness of your water. If the manufacturer's instructions show hardness using a different factor, you can convert the values as follows:

<b>Total hardness (as mg/l Ca)</b>	<b>x 2.5 = calcium carbonate (CaCO<sub>3</sub>) mg/l</b>
	<b>x 0.174 = Degrees Clarke</b>
	<b>x 0.25 = French Degrees</b>
	<b>x 0.142 = German Degrees</b>



We do not change the natural hardness of the region's water through treatment, it is left to the customer, either domestic or commercial, to decide whether artificial softening is the right choice for them.

There are efficient softening devices available for domestic installation from reputable companies. Most of these work by altering the chemical composition of the water, the calcium and magnesium are substituted with sodium. Northumbrian Water strongly advises that customers keep at least one mains-fed tap in the property for drinking and cooking purposes. This is particularly important for bottle-fed infants and anyone on a sodium-restricted diet\*.

Northumbrian Water also advises that any water softening devices are installed and operated in strict accordance with the manufacturers instructions.

Further independent advice concerning water softeners and filtration devices can be obtained by contacting British Water at 1 Queen Anne's Gate, London SW1H 9BT or by visiting their website at **[www.britishwater.co.uk](http://www.britishwater.co.uk)**.

\* Many water softeners work by exchanging the calcium and magnesium in the water for sodium.

