

# Biofilms and staining explained



**Scottish Water supplies high quality, safe drinking water direct to your tap 24 hours a day, 365 days a year.**

The water that we supply is required to meet the standards as laid down under The Public Water Supplies (Scotland) Regulations 2014. Sometimes you may notice the presence of black or grey slime, or pink staining in areas that are in constant contact with water – for example bathrooms, showers and kitchen surfaces. The slime and staining are caused by biofilms.

**This factsheet will provide you with information on:**

- What biofilms are
- Where we sample
- Where you find biofilms
- Are biofilms harmful
- What you can do about biofilms
- How to contact us

## 1 What biofilms are

Biofilms are a mix of bacteria and fungi which are naturally found in air and water. Given the right growth conditions they will colonise a number of surfaces usually in the kitchen and bathroom. They will grow and typically produce a black slime. Biofilms can also be seen as pink staining, particularly between tiles. The pink staining is due to the growth of an airborne bacteria known as *Serratia Marcescens*, often associated with new build properties or where construction has been carried out.

We add chlorine at the water treatment works to control bacteriological growth and ensure the water is safe to drink. However any residual chlorine is removed by the heating action of showers or hot water systems and the use of in-line filters, allowing biofilms to develop.





## 2 Where we sample

Water is sampled regularly at our treatment works, service reservoirs and at our customers' taps to monitor the quality of the drinking water. In addition to this, some water quality parameters are continuously monitored at major treatment works. Across Scotland laboratory tests are carried out on water samples each year for regulatory purposes. Many more samples are taken by staff for operational reasons (e.g. bursts, new mains, complaints). The percentage of all regulatory samples complying with the relevant standards in Scotland is over 99%.

## 3 Where you find biofilms

- shower heads and curtains
- washing machine rubber door seal and powder drawer
- kitchen and bathroom tiles or grout
- waste traps
- toilet cisterns and bowls
- cold water taps (plastic inserts)

## 4 Are biofilms harmful

Biofilms may cause taste and odour problems in your water if they are growing in water pipes. Generally they are not considered to be a risk to health.

## 5 What you can do about biofilms

Biofilms occur where there is moisture and nutrients available for growth. You can limit their growth by eliminating nutrients such as shampoo, soaps, deodorants and kitchen foods and by increasing the ventilation in the area. Certain plumbing materials (e.g. rubber washers) may encourage their growth and should be replaced.

Kitchen surfaces and bathroom tiles should be regularly cleaned with a mild bleach solution or household cleaner to control the growth of bacteria and fungi. The black slime and pink staining can be removed by using a small brush and a mild bleach solution.

We also suggest that the storage tank that feeds showers and internal plumbing is covered and free of debris (clean if necessary).

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## We want to make it easy to contact us – here's how:

We always have someone here to take your call, you can write to us or alternatively you can contact us through our website.

Alternative formats of this leaflet can be made available free of charge. For information on Braille, large print, audio and a variety of languages, please contact us.

If you have a disability, medical condition or other reason where you will need additional assistance from Scottish Water then please contact us and we can add your name, address and requirements to our confidential Priority Services Register.

We record all calls for quality and training purposes.



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Customer Helpline **0800 0778778**

Please quote this reference code when contacting us: **SWFact BSE5 05/20**