

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 Water Supply (Water Quality) (Scotland) Regulations 2001.

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

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. 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.

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%.



where you find biofilms

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

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.

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 and deodorants and kitchen food 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).

how to contact us

Details of water quality testing in your area can be obtained by contacting us and asking to speak to one of our specialists in the Public Health team.

If you require more information on our services, please contact us:

By phone on our Customer Helpline **0845 601 8855**

On the web at **www.scottishwater.co.uk**

Or in writing at **Scottish Water, PO Box 8855, Edinburgh, EH10 6YQ**

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 call our Customer Helpline.

Please quote this reference code when contacting us: **SWFact BSE4 04/11**

We record all calls for quality and training purposes.