

Wet Surfaces in Your Home

Have you ever experienced your drinking water coming in clear, but surface areas that get wet in your home are developing a visible film or ring over time? The ring can be a range of colors, from pink, to orange, dark gray, and even black, and appears to have a film or slime-like appearance.

You may have thought that this ring or film comes from your drinking water, since it does seem like, whenever it pops up, it is sitting on a wet surface! Even though it may seem like it, this is not a water quality issue. This film is actually a growth of microorganisms called a Biofilm. Biofilm is a growth of airborne microscopic microorganisms that move through the air. The microorganisms land on wet areas of your home and then develop to form a visible colony, that is called the Biofilm.

Important Notes:

- Note if the water is coming in clear or colored. If your water is coming in clear and surfaces are developing a color overtime, this is a biofilm issue. If your water is coming out of your fixtures not clear, such as black, brown, or pink, then this is an issue that needs to be addressed by calling Pennichuck.
- Pennichuck will help diagnose the issue, which has varying options depending on what may be going on. Some common remedies include asking you to flush your internal home piping if we have recently been experiencing colored water in your area or it could be an issue that requires us to come out and flush our mains in your neighborhood.
- If the water coming out of your fixtures is not clear, please give Customer Service a call at 800-553-5191.

Have you determined that your water is coming in clear but on your surfaces there is a color forming overtime? Please review the following common questions regarding Biofilm:

What is Biofilm?

As stated above, Biofilm is a growth of airborne microscopic microorganisms that move through the air. The microorganisms land on wet areas of your home and then develop to form a visible colony, that is called the Biofilm. It can present itself as a ring or film-like material that is a range of colors, including pink, orange, dark gray, or even black.



What are Bacteria and mold?

The microorganism that you are seeing could be made up of fungal (mold) or bacteria. Mold is a natural part of the environment and can be found almost anywhere that moisture and oxygen are present. This is typically the black or brown film you are seeing. Bacteria are also a natural part of the environment. This is typically the pink or orange film you are seeing. This type of bacteria is typically found in the following and it thrives in moisture, dust, and phosphates:

- Soil
- Food
- Untreated water
- Plants
- Insects
- Vertebrates (including humans)

Where in my house will Biofilm be present?

Biofilm will be present on surfaces that are continually wet in your home. Common areas include:

- Toilets
- Shower heads
- Shower curtains
- Drains
- Bathroom tub enclosures
- Any surface in your bathroom or kitchen
- Refrigerator water dispenser
- Humidifiers
- Pet bowls



The bathroom provides a perfect environment for mold and bacteria to thrive, as it is typically a place that is warm and moist. Also, some households have guest bathrooms, or other places in the like, where water sits for prolonged periods of time, without being flushing or washed. This allows any chlorine residual from your water or bleach disinfectant to dissipate and allows the mold or bacteria to begin creating Biofilm.

How did this get into my home?

The microorganisms that create Biofilm are airborne, and naturally present in the environment. The microorganisms can be transported into your home by air currents from an open window or transferred

through people or pets entering and leaving the home. That being said, it is almost impossible to stop these from entering your home, so the only way to avoid Biofilm from growing and leaving the ring or film on your surfaces is regular cleaning, defined below. Another common event that creates an uprise in Biofilm is new construction and renovations. Due to the nature of these events, dirt and dust is stirred up and releases the bacteria into the air.

How do I get rid of Biofilm?

The best solution to any biofilm problem, whether it is caused by mold or bacteria, is to frequently clean the surfaces with bleach and to keep them free from moisture. The best cleaners contain Chlorine-based compounds (Sodium Hypochlorite). Chlorine bleach can be used periodically to disinfect the toilet and help to control the reoccurrence of Biofilm.



Keep the problem surfaces, such as bathtubs, toilets, and sinks, wiped down, followed by spraying the area with a solution that contains chlorine (Sodium Hypochlorite). Keep a regular cleaning schedule going, making this a weekly priority. It is important to take caution when cleaning, and avoid any abrasive cloth or sponge, as scratching the surfaces makes it more susceptible to the bacteria.

Will Biofilm return once I get rid of it?

Yes, once Biofilm has established itself, it will return to the same problem spots if regular cleaning is not continued. Therefore, it is vital to continue the cleaning regime established, with a solution that contains chlorine (Sodium Hypochlorite), to control regrowth. Many homeowners who have an activated carbon filter that removes chlorine from the water coming into their home will see more consistency in the return of Biofilm, as it removes the product that is acting against this type of bacteria.

Should I have my water tested?

Pennichuck cannot test this material because it is not considered a water quality issue. Our state consumer regulators require us to test for only what is mandated by the Environmental Protection Agency (EPA) in order to help control costs. Also, the compliance testing associated with the Safe Drinking Water Act (SDWA) does not have a particular test for airborne microorganisms. Please contact a local lab if you would like to have something tested.



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Who can I contact to talk about this?

Please feel free to contact Pennichuck Water at 800-553-5191 to speak to us about this. If you feel like you would like to speak to an outside source, please feel free to contact the New Hampshire Public Utilities Commission (NHPUC) or the New Hampshire Department of Environmental Services (NHDES) Drinking Water and Groundwater Bureau at the contact info below.

NHPUC:

Email – consumerservices@energy.nh.gov

Phone – 1-800-852-3793

NHDES Drinking Water and Groundwater Bureau:

Email – dwgb.complaints@des.nh.gov

Phone – 603-271-3503

Online – www.des.nh.gov/complaints#faq32151