

# White or Green buildup on the outside of the faucets

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If you're not sure if your water is corroding your faucets or it's the faucets, take a look at the rest of the house. Are you experiencing pitting and corroding on all the faucets or just a few? Do you have pin holes leaks or green/blue stains in your sink? If it's just the faucet that seems to be having a problem then it is just that, a problem with the faucets. Find out the difference between corrosive water and oxidation below.

## Corrosive Water

When there is a problem with corrosive water normally the copper lines will corrode from the inside out. When corrosive water attacks the plumbing it will break away the copper from the pipes and it will lay there until you call for water. When water is ran the leached copper comes out of the pipes and mixes with oxygen to turn it green/blue. You will find green/blue stains in the drain of the sink that you put on first thing in the morning, not on the faucet.

## Oxidation

A freshly-cut apple turns brown, a bicycle fender becomes rusty and a copper penny suddenly turns green. What do all of these events have in common? They are all examples of a process called oxidation.

Oxidation is defined as the interaction between oxygen molecules and all the different substances they may contact, from metal to living tissue. Sometimes oxidation is not such a bad thing, as in the formation of super-durable anodized aluminum. Other times, oxidation can be destructive, such as the rusting of an automobile or the spoiling of fresh fruit.

Water is a catalyst for oxidation. Because faucets are in a humid environment and water gets on them the water escalates the oxidation process. The metals that the faucets are made up of will leach out. For example a brass faucet is made up of zinc and copper. The zinc comes out as a white deposit a similar look to calcium deposit and the green is the copper. Fun Fact: The exterior copper covering of the Statue of Liberty is  $\frac{3}{32}$  of an inch thick and the light green color (called a patina) is the result of natural weathering of the copper

Harsh cleaners especially chlorine based cleaners will dissolve the original coating that is supposed to protect the metal. Once the coating has been deteriorated the oxidation of the metal speeds up.

## What can you do to protect your faucets

The secret of preventing oxidation caused by oxygen is to provide a layer of protection between the exposed material and the air. This could mean a wax or silicone coating. Portasoft recommends cleaning and drying the faucet then spraying or rubbing on silicone and reapply every few months. Similar to a polyurethane coating on a car, a layer of paint on metal objects or a quick spray of an anti-oxidant, like lemon juice, on exposed fruit. Destructive oxidation cannot occur if the oxygen cannot penetrate a surface to reach the free radicals it craves. Also do not use cleaning products that contain chlorine. Clorox has a non-chlorine disinfectant

\*\*Portasoft can only coat the inside of plumbing not the outside.