

Beat Limescale With Eddy

Why you need a descaler?

Scale, or limescale is a hard, whitish coating that builds up on surfaces that come into contact with hard water. Hard water causes limescale because it contains calcium carbonate (lime) and other minerals that stick to pipes and water heaters as water is heated. The accumulated limescale inside water heaters reduces their life and energy efficiency.

Water from a groundwater source is usually harder because minerals drain into it from the soil. Water from river sources is generally softer.

How Limescale Forms

When mains water is heated, it causes the dissolved salts to attach themselves to any metal they come into contact with, forming a creamy-coloured hard crust called limescale or scale. It's a familiar sight on the heating elements in electric kettles and other boilers. In areas of the country where the water is naturally soft, the build-up takes a longer time to be noticed. In hard water areas, the limescale build-up can be relatively quicker.

An electronic descaler such as Eddy will minimise the Cause of lime scale formation.

Unlike most substances, most calcium salts become less soluble as the temperature rises (commonly known as inverse solubility). Such salts are naturally present to some degree in all mains water supplies. Hence, any system where mains water is heated is liable to suffer from limescale formation. Consider a mains water containing 300 milligrams per litre (mg/l) of calcium carbonate hardness. The potential weight of limescale produced in a 100 litre central heating system is 30 grams, and this is from only the initial fill of water. Once formed, calcium scale tends to not redissolve, and water lost from the system for whatever reason will leave it behind.

The fresh make-up water will then bring more calcium salts into the system to begin the process again producing an ever-increasing thickness of scale. Being a direct result of increased temperature, limescale will form in the hottest part of the system, usually the heat transfer surface in the boiler. In contrast, iron oxide first forms as sludge at the point of corrosion, and only turns into limescale if it is carried by the water to the heat exchanger where it can become hardened by baking. You need a descaler.

Effects of Limescale

Limescale can be a major problem when it occurs in the internal pipe work or water heating elements of kitchen equipment which uses running mains water and heating elements, such as dishwashers, combi-ovens, coffee machines and vending machines. It can even be a potentially dangerous cause of overheating in these appliances. Where scale build-up occurs in internal pipework, it restricts the flow of water causing serious and expensive damage to equipment. Where scale build-up occurs on heating elements, it insulates the elements and forces them to use far more energy than needed to heat the water, leading to early burn-out. The fact that a catering business may be in an area of the UK officially classified as a soft-water region is not an excuse for not fitting a water softener treatment device, because there is still a risk. There are dissolved salts in all types of water and scale build-up will occur eventually. Even when the normal water supply is considered to have soft water, should the water be drawn from deep boreholes in times of drought, its hardness level will change. Additionally, water companies move water around from region to region through underground pipe work, which also changes the hardness level.