Villaägarna reveals:

Only one of five limescale products works

Large quantities of lime in the water is a common problem in Sweden. This leads to limescale in, among other things, hot water heaters, coffee makers, and in wet rooms. Villaägarna has examined five limescale products and the result is disappointing – only one product does the job. In fact, a traditional water filter works best.

Among the tested products, the traditional limescale filter from Callidus has the best effect by far. Among other products, where several are sold in many other countries, Softwater works poorly. Electrolux Neocal, Aqua 2000 and Aquabion D20 do not work at all.

- It is deplorable that consumers both in Sweden and abroad are deceived to buy limescale products that do not work, says Villaägarna's construction engineering expert Johan Smeds.

Examples of places in Sweden where there are large quantities of lime in the water are Skåne, Uppland, Jämtland, Västerbotten, Gotland and Öland. Sales of products to counteract limescale are also the greatest in these places. Villaägarna's test at RISE shows that a traditional water filter is by far the best solution for reducing problems with limescale.

The table below shows how much lime was removed during the 2.5 months of testing in a hot water heater with various water purification products.

Product and price not incl. installation	Function	Lime precipitation (mg)
Softening filter NF 13 Commander from Callidus, approx. SEK 18,000	Traditional water filter for lime. The softening filter is loaded with salt tablets, about 25 kg per month for a household with normal consumption.	20 mg
Softwater SW34 Special, approx. SEK 8,000	Water purification products in the form of pipes with metal plates inside, which should be largely maintenance-free and solve problems with lime in water without the use of salt, electricity or magnets.	2,300 mg
Electrolux Neocal, approx. SEK 300		4,500 mg
Aquabion D20, approx. SEK 8,000		6,500 mg
Aqua 2000, approx. SEK 1,600	Magnetic water treater, which is attached to the water pipe and thus counteracts the precipitation of lime.	6,700 mg
Reference (no limescale separation)	Result without connected product	5,400 mg

Villaägarna has also let RISE test whether Aquabion D20 – as companies claim – can convert the lime's structure from calcite to aragonite, which does not adhere as easily but is to a greater extent flushed out with the water. The result shows that no such transformation occurs.

- What is effective against limescale is simply a traditional water filter. It is more expensive, but works well unlike the other limescale products, says Villaägarna's

construction engineering expert Johan Smeds.

More information

- **1.** Film about limescale products (Swedish)
- 2. The report "Comparative Testing of Limescale Products" by Thomas Ljung, RISE Research Institutes of Sweden (English)

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