

Frequently Asked Questions: Cleaning Stainless Steel in the Home



Euro Inox

Euro Inox is the European market development association for stainless steel. The members of the Euro Inox include:

- European stainless steel producers
- National stainless steel development associations
- Development associations of the alloying element industries.

A prime objective of Euro Inox is to create awareness of the unique properties of stainless steels and to promote their use in existing applications and new markets. To this end, Euro Inox organises conferences and seminars and issues guidance in printed form and electronic format, to enable architects, designers, specifiers, fabricators and end users to become more familiar with the material. Euro Inox also supports technical and market research.

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Content

The present publication summarizes frequently asked questions regarding the cleaning and maintenance of stainless steel in the home. The following topics are addressed:

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In a nutshell:

The following implements and products are usually effective and do not damage decorative surfaces:

- soft sponges and (microfibre) cloths
- soapy water (to remove grease)
- diluted vinegar (to remove limescale)
- baking soda (to remove coffee deposits)
- washing soda (to remove tea deposits)
- alcoholic solvents (to remove adhesives)
- chloride-free glass spray cleaners (for mirror-polished stainless surfaces)
- dedicated chromium and stainless steel pastes and sprays (for cleaning and protection)

Great care should be taken when using:

- stainless steel scouring pads (risk of scratch marks)
- bleach and disinfectants (risk of corrosion)

Unsuitable products include:

- scouring powder (scratch marks)
- ordinary (carbon) steel scouring pads (scratch marks and corrosion)
- silver dip cleaners (corrosive to stainless steel)



Frequently asked questions

I am considering stainless steel for my kitchen. How do you clean stainless steel surfaces?

Stainless steels are easy to clean. For this reason they are the normal choice of material in the catering and food-manufacturing industries. Their smooth, non-porous surface makes it difficult for bacteria and other micro-organisms to adhere and survive.

Of course, no material in the home is totally maintenance-free, and stainless steel is no exception. The important thing is that stainless steel can be cleaned easily, leaving bright, shiny and hygienic surfaces.

The excellent corrosion resistance of stainless steels used in the kitchen means that they resist attack or staining from foods such as tomatoes, red peppers or fruit juices which can affect the surfaces of other materials.



Stainless steel is resistant to aggressive fruit and vegetable juices.

How can I remove fingerprints from cabinet trim, extraction hoods and other decorative surfaces?

In most cases, a soft cloth or sponge soaked in soapy water will produce perfect results. Another easy method is to use a slightly damp microfibre cloth.

On mirror-like stainless steel surfaces, glass cleaners perform well. Avoid abrasive products, as they will leave scratches. On brushed and polished surfaces, always wipe in the direction of the polish grain and not across it.



A slightly damp microfibre cloth will effectively remove finger marks from decorative finishes.



Decorative surfaces should always be wiped in the direction of the polish grain, not across.

Finger marks on the surface of stainless steel is more of a problem on new appliances. After only a few weeks in the kitchen, fingerprints show up less than when the surface was brand new. There are also proprietary anti-fingerprint surfaces that dramatically reduce the visibility of finger marks.

How can I handle more tenacious deposits, for example on my kitchen sink?

For stubborn dirt, such as grease or tea stains, a normal cream cleanser will generally do the job.

It is advisable to wipe the surfaces dry and to remove the wet cloth or sponge, especially in hard-water areas, to avoid water marks and limescale.



Domestic-appliance manufacturers now provide a wide range of “anti-fingerprint” solutions. However, even on usual polished surfaces, finger marks become less visible over time.



How can I remove limescale?

If a cream cleanser is not enough, treat the limescale with a 25 % vinegar solution, giving it time to dissolve. Then clean, rinse and wipe dry as usual. If you want to avoid the smell of vinegar, citric acid is an odourless alternative.

Wipe dry, to prevent scale forming. Existing scale can be removed using vinegar or diluted citric acid.



What can I do against burnt-on food on pots and pans?

You can substantially reduce the cleaning effort by soaking the burnt-on deposits. Simply fill the pot with hot water and a drop of washing-up liquid and leave it for 15 minutes. The deposit can then usually be removed quite easily with a sponge or a nylon scouring pad.

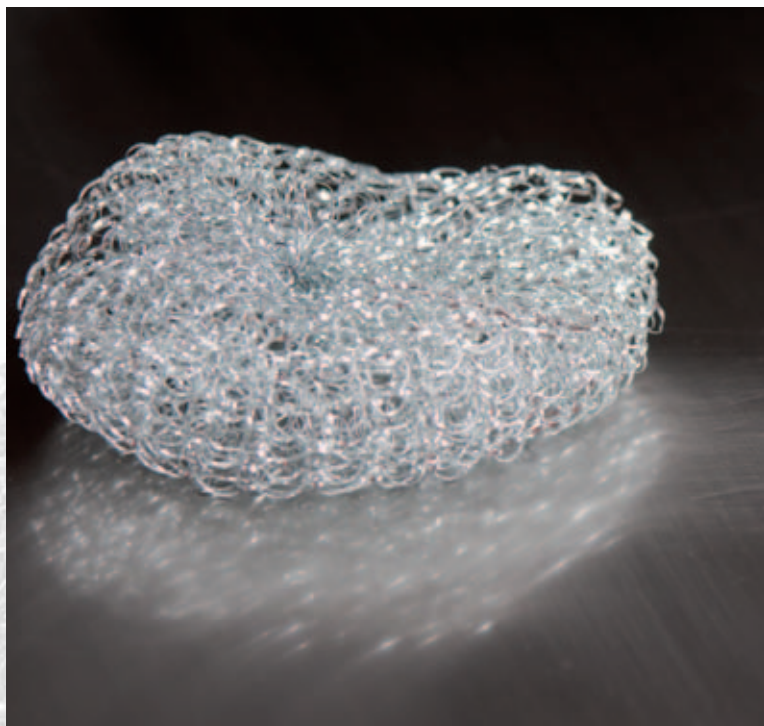
Never use non-stainless steel wool scouring pads. Ordinary steel wool pads can leave rusty stains after cleaning, which may permanently damage the corrosion resistance of the stainless steel.

Special stainless steel wool scouring pads can be used if deposits are difficult to remove. They are likely to leave superficial scratches on the cleaned surface, but this will not damage the material's corrosion resistance. This form of abrasive cleaning is not suitable for delicate, decorative surfaces such as fridge doors or extraction hoods.

Badly burnt-on food can often be removed by filling the pot with hot water and dissolving in it a few teaspoons of washing soda (sodium carbonate, Na_2CO_3 , available from supermarkets or chemists). Allow the solution to work for some hours. It should loosen the more stubborn deposits or cause them to spall off. Sodium carbonate is environmentally harmless and non-toxic.



Use only stainless steel or nylon pads on stainless steel pots and pans – never “ordinary” steel pads.



For delicate decorative surfaces such as extraction hoods, hard cleaning implements should be avoided, as they can scratch the surface.



Tea residues can be hard to remove. What would you recommend?

Washing soda (sodium carbonate, Na_2CO_3), recommended above for burnt-on food, is also effective in removing tea (tannin) stains. Immerse the teapot, where practical, or apply the solution using a cloth or sponge. Then rinse with clear water and dry as usual.

Tea stains can be removed with a washing-soda solution.

Does the same procedure apply to coffee deposits?

Coffee deposits are oily and only occur if coffee urns are not regularly cleaned. In this case, baking soda (baking powder) is the answer. Mix a solution of boiling water and baking powder, allow the solution to work for 15 minutes, and then rinse and dry as usual.



Baking soda (baking powder) effectively removes coffee deposits

How do I remove adhesive residues?

Depending on the adhesive, residues can be removed with water, alcoholic solvents or acetone, which are known not to not attack stainless steel.

Are there any cleaning practices that should be avoided?

Concentrated disinfectants containing bleach (sodium hypochlorite) can damage stainless steel. Also, diluted products can make stainless steel corrode if they are left in contact with surface for too long or not thoroughly rinsed off. Even if such cleansers are explicitly described as suitable for



Chloride-containing products should be applied with care, even if marked as suitable for stainless steel. Over-concentration, prolonged contact times and incomplete rinsing can lead to stainless steel corroding. The instructions should be followed meticulously.

stainless steel, great care must be taken to follow the instructions carefully. The recommended dilution, exposure time and temperature must be strictly observed. When rinsing the surfaces, care must be taken to avoid cleanser stagnating or being trapped in crevices.

Salt or cleaners containing chlorides can also cause damage. Have a look at the chemical composition: if the chemical symbol “Cl” appears, there is a possibility that this product may harm metals such as stainless steel.

Hard, abrasive scouring powders will leave scratch marks. Wire-wool pads made of “ordinary” steel are totally unsuitable for stainless steel as they will damage the material in two ways. Not only will they-cause scratch marks but traces of iron will impair the self-healing capability of the stainless steel surface.

Silver dip cleaners may contain chlorides and strong acids and are not suitable for stainless steel.

There are special protective sprays and pastes for metals. What are they for?

Most spray cleansers for metallic surfaces contain silicon oil. These products, often made specifically for stainless steel, can make cleaning a lot easier. However, although they remove existing finger

marks, they will not stop new finger marks becoming visible. The effect of the spray lasts from a few days (in heavily exposed areas) to several weeks. The silicon oil can be completely removed with soapy water. Polishing pastes produce a microscopic but highly resistant wax layer that makes metallic surfaces particularly easy to clean. Being resistant to detergents, these layers may last several months. They can be removed with alcohol.

Both these treatments are used for decorative parts, even in a food-preparation area. They are not, however, used for food-contact articles.

I have read about “self-sanitizing” surfaces. Are these not even better than stainless steel?

The hygienic properties of surfaces are the subject of a lively debate among scientists. There are certain materials and coatings that release silver or copper ions and have a known ability to kill germs or slow down their proliferation. However, how effective such “active” surfaces are in practice is a matter of discussion and controversy among experts. The long-term potential effects of such ion release on human health and the environment are not fully understood.



Dedicated pastes and creams may have a long-lasting conservation effect. They can also be used in food-preparation areas, though not for food-contact items.

Stainless steel is neutral to human beings and the environment. It neither patinates nor ages. It requires no applied layers – which are prone to damage and can wear off. Its cleanability remains unaffected over time. Hence stainless steel is the normal choice of material wherever hygiene is of the utmost importance: in food-processing, catering and medical applications. Decades of positive experience in professional use also reassure consumers that stainless steel is a good choice for domestic appliances, cooking utensils, tableware and cutlery – in other words, wherever cleanability and hygiene come first.



Even after years of heavy use, stainless steel objects maintain their hygiene properties.

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