

What Is Stainless Steel?

Mild steel is a mix of iron, carbon (up to 2%) and other elements in small quantities. It rusts easily because there is nothing to stop iron mixing with oxygen.

When stainless steel is being made, about 10-20% chromium is added. Chromium mixes with oxygen more easily than iron. The chromium on the surface of the steel combines with oxygen and forms a hard protective layer, which drastically slows down any rusting.

What Causes Stainless Steel To Tarnish?

Stainless steel is not rust proof. Like any other material, it can also get dirty. There are three main causes of tarnishing:

1. Particles which settle on the surface, that has nothing to do with ordinary use. Much of this can be prevented by keeping the barbecue covered.
 - Salt in the air and in rain – especially within 5 km from the coast.
 - Particles in the air – eg metal particles and cement dust from nearby factories and work sites.
 - Ordinary dirt.
2. Oils and grease from using the barbecue
 - Fingerprints
 - Burnt on food and grease. Some of these may be corrosive.
3. Thermal staining. When you heat the steel, the elements in the steel react with air. At around 290°C, you see pale yellow Chromium Oxide. This is normal, and is not a fault in the material.

Basic Outdoor Cooking Centre Cleaning Guidelines

- First, prevention: keep the outdoor cooking centre covered.
- Wash down every two months, to remove particles which have settled on the surface.
- Don't use steel wool or steel brushes. These leave particles behind on the stainless, which can rust.
- If there is a visible "grain" in the steel (eg. polished surfaces), always rub in the direction of the grain.
- Always rinse and dry after cleaning to remove any residue from cleaning agents.
- Use the gentlest method of cleaning possible. In order these are:
 - Warm water with or without a gentle detergent is sufficient to remove dirt and general grime
 - Mild non abrasive household cleaners
 - Specialised stainless steel cleaners
 - Using vinegar or rubbing with a paste of sodium bicarbonate and water.
 - Organic solvents that do not contain chlorine, such as acetone or methylated spirits
 - Abrasives are a last resort. Always test on an inconspicuous area first. Stainless steel can still scratch.

Stainless Steel Cleaning Guide

Routine Cleaning	Warm water, Dishwashing detergent, Ammonia.	Apply with sponge or soft cloth.
Fingerprints and Smears	3M Stainless Steel Cleaner and Polish, Cream Polish, Stainless Shine, Hillmark BBQ Enamel & Steel Cleaner, Hillmark Stainless Steel Power Cleaner, Hillmark Stainless Steel Pump Pack	Can be used on all finishes. Provides a barrier film to minimise further marking from fingerprints.
Stubborn Stains and Discolouration	'Autosol' (Available from most Auto Accessories outlets), 3M Stainless Steel Cleaner and Polish, Hillmark BBQ Enamel & Steel Cleaner, Hillmark Stainless Steel Power Cleaner, Hillmark Stainless Steel Pump Pack	Rub lightly, using dry damp cloth.
Burnt-on or Baked-on Foods	Scotch-Brite Power Pad 2001, Hillmark BBQ Enamel & Steel Cleaner, Easy-Off De-Grease-It, 4% to 6% hot solution of such agents as Tri-sodium polyphosphate, 5% to 15% caustic soda solution	Excellent removal on acids. Particularly useful where rubbing is not practical.
Grease and Oil	Any good commercial detergent cleanser, Hillmark Stainless Steel Power Cleaner, Hillmark BBQ Enamel & Steel Cleaner, Hillmark Stainless Steel Pump Pack	Apply with sponge or soft cloth.
Thermal Colouring	'Autosol' (Available from most Auto Accessories outlets), Hillmark Stainless Steel Power Cleaner, Hillmark BBQ Enamel & Steel Cleaner.	Apply with sponge or soft cloth.
Grills & Plates / Cooking Surfaces	Strong Dishwashing Detergent and hot water, Hillmark Grill & Hotplate Cleaner.	When using strong chemical cleaners, remove cooking surfaces from appliance before cleaning.

NOTE: Use of proprietary names is intended only to indicate a type of cleaner and does not constitute an endorsement. Omission of any proprietary cleanser does not imply its inadequacy. All products should be used in strict accordance with instructions on package.