

## CARE & MAINTENANCE FACT SHEET



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## STAINLESS STEEL

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### **Material Properties**

Stainless steel is the generic name for a number of different steels used primarily for their resistance to corrosion. The one key element they all share is a certain minimum percentage of chromium of 10.5%. Although other elements, particularly nickel and molybdenum, are added to improve corrosion resistance, chromium is always the deciding factor. However, despite its various additions stainless steel still behaves as steel, and even the highly alloyed stainless steel grades such as 316 still contain a minimum of 62% iron.

Gloster manufactures using 304 grade stainless steel with an electro-polished (EP) finish brushed finish. Electro-polishing is widely used in the electronics, food and medical industries and on components for cruise ships and yachts, where a corrosion resistant, smooth and easy to maintain surface is of vital importance. Electro-polishing is an electrochemical process whereby the combination of an electrical current and a strong acid erodes the surface of the stainless steel substrate atom by atom. This process removes much of the iron from the surface of the steel, but leaves the chrome intact, resulting in more shiny, but much improved corrosion resistant surface.

However, as with any item left permanently outside, even electro-polished stainless steel furniture requires regular maintenance to keep it looking as new. Before the furniture leaves our factory the welds are ground flush and the surface is polished with Scotchbrite, usually in the long direction of the legs or rails. This provides a smooth, resistant surface that is easy to clean and maintain.

Although electro-polished stainless steel is generally highly resistant to corrosion, the surface can be susceptible to cosmetic deterioration by the effects of salt water and air-borne chemicals. This may result in small brown spots appearing on its surface (this process is likely to be accelerated in coastal areas). These spots in no way affect the strength, integrity or longevity of the furniture, they are simply superficial discolourations that require cleaning to restore the stainless steel to its original appearance.



STAINLESS STEEL CLEANER & POLISHER

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#### **Cleaning**

Despite EP stainless steel being largely resistant to corrosion, in time brown spots may still appear on the stainless steel surface. These deposits can be removed using Gloster's Stainless Steel Cleaner & Polisher, which cleans and restores the new look of EP stainless steel furniture and makes the surface repellent to both dirt and water.

Gloster Stainless Steel Cleaner & Polisher - 33oz / 1 litre plastic bottle. Water-based formula - both non-toxic and environmentally friendly. Cleans and restores the new look of stainless steel furniture. Makes stainless steel repellent to dirt and water. Each bottle is supplied complete with a special applicator pad.

#### **Instructions for Use**

1. Before using Stainless Steel Cleaner & Polisher, protective gloves (included in box) and eye protection should be worn. Cover the ground under your working area before cleaning.
2. Shake bottle before use.
3. Apply Stainless Steel Cleaner & Polisher with a soft cloth (included in box) and rub vigorously.
4. Should any surface discolouration remain, apply a second application of the Stainless Steel Cleaner & Polisher with a soft cloth (included in box), this time agitating gently with the scrubbing pad (also included in box).
5. Buff to a shine with a soft, clean and dry cloth.



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#### **Removing Rust Spots**

With all our stainless steel products we include a Scotchbrite pad. If any brown spots appear on the stainless steel they can be easily cleaned by gently rubbing the surface of the steel, in the direction of the brushed finish, with the Scotchbrite pad. We advise items are not rubbed excessively in this way as there is a risk of removing the EP finish.

If these deposits are allowed to build up, then it may be necessary to clean the product more thoroughly with Gloster's Stainless Steel Cleaner & Polisher, which cleans and restores the new look of stainless steel furniture and makes the surface repellent to both dirt and water.

#### **Instructions for Use**

1. Before using Stainless Steel Cleaner & Polisher, protective gloves (included in box) and eye protection should be worn. Cover the ground under your working area before cleaning.
2. Gently rub the surface of the steel, in the direction of the brushed finish, with the Scotchbrite pad.
3. Apply Stainless Steel Cleaner & Polisher with a soft cloth (included in box).
4. Buff to a shine with a soft, clean and dry cloth.



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