GLOSTER

POWDER COATED STAINLESS STEEL CARE & MAINTENANCE

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 much the same as steel, and even the highly alloyed stainless steel grades (such as 316) still contain a minimum of 62% iron.

Gloster manufactures using mainly 304 grade stainless steel for our tube and sheet components. We also use a small amount of 316 grade (marine grade) stainless steel in certain areas where corrosion resistance is very important. The stainless steel is coated with an electro-statically applied, powder coat finish. The electro-static application method ensures 100% coverage of the metal's surface area and provides a consistent and tough finish that far exceeds other conventional paint finishes. The resulting finish is knock and scratch resistant, impervious to moisture, highly resistant to corrosion and easy to clean.

The process of powder coating involves a lengthy pre-treatment process. First the material is thoroughly sanded with abrasive paper much in the same way that wood is sanded. The frames and components are then immersed in a series of chemical baths to clean and degrease the metal. The powder coat (normally this is Polyester) is then applied using electrostatic spraying equipment. A thin layer of powder is deposited over the entire frame before the frame is put into an oven at approximately 200°C (392°F) for 15-20 minutes, depending on the size of the component.

The advantage of using powder coat over a paint finish is that the coating is harder and can be thicker than that of paint. Also, there are no solvents involved. The disadvantage of powder coat over paint finishing is that powder coat is very difficult to repair if it becomes damaged. It is not possible to perfectly match the appearance of powder coat with a repair made using a liquid paint.

Cleaning

Powder coated stainless steel should require very little maintenance, other than to gently clean with water and a mild liquid detergent to remove any dirt or splashes. A microfibre cloth or sponge should be used to wipe over the surfaces of the furniture. Removing surface water with a drying cloth (like you would use on your car) will help avoid water spots. Avoid using any abrasive cleaning agents or materials, as these could mark the surface of the powder coat. Do not use steel wool or Scotchbrite on powder coated surfaces.