

## **WARRANTY, CARE & MAINTENANCE for 18 x 16 STAINLESS STEEL 304 and 316 INSECT SCREENING**

### **GENERAL:**

Shellhold Pty Ltd is an importer and distributor of the above products. The 304 & 316 grade has been successfully salt tested by AZUMA, a NATA accredited laboratory, and has also passed a furnace test conducted by UNISEARCH (UNSW) at a temperature of 1000°C. Both the 304 and 316 products meet the requirements of Australian Standard AS3959 "Construction of Buildings in Bush Fire Prone Areas" for windows (clause 3.6) and external doors (clause 3.7) level 1, 2 & 3 where aluminium mesh is NOT permitted in level 2 or 3.

The superior 316 grade is a premium stainless steel mesh that is more resistant to corrosion. However, it is worth noting that all insect mesh will tend to trap air borne dirt and impurities and, when combined with salt and moisture, staining of the mesh will occur. This can present as reddish-brown marks on the mesh surface, known as "tea staining", or fluffy white marks due to salt build up. The brown discolouration or "tea staining" does not affect the structural integrity or longevity of the Stainless Steel and it can be minimised by following the maintenance instructions contained herein.

### **WHERE DOES TEA STAINING OCCUR?**

Tea Staining occurs most commonly within about 5-10 kilometres of the ocean or a few hundred metres from sheltered coastal water. Tea staining will occur on any surface because particles of iron are contained in dust and dirt and react with moisture and/or sea-spray (containing salt) to create an irregular tea stain pattern. The tea staining if left on the stainless steel will attack the iron in the surface of the metal. Wind exposure, pollution and higher temperatures can create environments where tea staining can occur 20 kilometres from the sea (refer AS 2312 Guide to the Protection of Structural Steel against Atmospheric Corrosion).

### **MATERIAL SELECTION:**

In areas susceptible to tea staining, 316 grade Stainless Steel should be the preferred choice.

### **CARE & MAINTENANCE:**

Regular washing with clean fresh water removes contaminants, such as salt, dirt and dust, which cause surface corrosion and is necessary to minimise, but will not eliminate the possibility tea staining. Both surfaces of the Stainless Steel Insect Screen Mesh should be washed in warm soapy water to remove any build-up of dust, dirt and salt, then rinsed in fresh water and **dried**. The frequency for this procedure is shown in the following table:-

<b>ENVIRONMENT</b>	<b>DESCRIPTION</b>	<b>CLEANING INTERVAL*</b>
Mild	More than 10 km from coastal waters	Every 3 months
Moderate	5-10 km from coastal waters	Every 2 months
Marine	1-5 km from coastal waters	Once per month minimum
Severe Marine	Less than 1 km from coastal waters	2-4 times per month

\* The above cleaning interval is a guideline. As conditions can vary widely throughout Australia, we suggest that property owners carry out visual inspections of the screens on a regular basis, and if necessary modify the cleaning intervals in order to keep the screens in good condition.

### **WE HIGHLY RECOMMEND coating with:**

**INOX-mx3 ANTI-MOISTURE, ANTI-CORROSION LUBRICANT, or  
LANOX-mx4 HEAVY DUTY ANTI-CORROSION LANOLIN LUBRICANT**

After the wash process, please ensure that the surface is completely dry before completely coating with INOX-mx3 or LANOX-mx4. INOX-mx3 & LANOX-mx4 is available from major automotive outlets and most major hardware stores. For more details, go to [www.inox-mx3.com/inox.htm](http://www.inox-mx3.com/inox.htm)

Physical damage to the black powder coating on the wire surface should be avoided.

Contact with dissimilar metals should be avoided, as this can cause galvanic corrosion.

Insect screen frames made from aluminium should be powder coated to a uniform 0.05mm minimum thickness.

Installation should be avoided in locations where the insect screen mesh is continuously exposed to damp conditions.

### **WARRANTY:**

Shellhold warrants its stainless steel mesh to be free from any manufacturers' faults or defects in its original condition and we will replace defective stock within 12 months of purchase date. This warranty excludes claims relating to tea staining, contact with dissimilar metals, any corrosion related claims resulting from sub-standard installations and where our recommended cleaning & maintenance schedule has not been carried out.

### **REFERENCES:**

Australian Stainless Steel Development Association [www.assda.asn.au](http://www.assda.asn.au); AS2312 Guide to the Protection of Structural Steel against Atmospheric Corrosion; AS3959 Construction of Buildings in Bush Fire Prone Areas.