

## CARING FOR YOUR STAINLESS STEEL

Stainless Steel enjoys a reputation as a material offering long term surface finish and structural integrity. But like all materials, stainless steel may become stained or discoloured over time. This brown discolouration is referred to as tea staining.

### *What is tea staining?*

Tea staining is defined as the discolouration of the surface of the stainless steel that does not affect the structural integrity or the longevity of the material.

### *Where does tea staining occur?*

Tea staining predominately occurs within 5klm of the sea but factors such as wind exposure, pollution levels and higher temperatures can create environments where tea staining can occur, 20klm or more from sea water.

### *Prevention is better than the cure.*

Rough surfaces promote tea staining so the smoother the surface the better. The smoother surfaces stay cleaner between washers and don't have surface grooves where chlorides (salts) and other contaminants can collect. But even smooth stainless steel surfaces in coastal environments can show signs of tea staining if not washed regularly.

### *How regularly should I clean my stainless steel?*

In severe coastal environments it is recommended that the surfaces be clean 4-12 times a year depending on natural washing, such as rain, to 1-2 times a year in less severe situations.

## WHAT TO USE AND HOW

### *Maintenance: routine removal of grime:*

Stainless steel holds its appearance best if it is washed regularly. When washing use soap or detergent or 1% ammonia solution in warm, low chloride water with cloths or soft brushes to avoid scratching the surface. Smears will be reduced if the surface is dried afterwards. Bleaches are not recommended. Simply wiping with a damp cloth is not adequate as it smears corrosive deposits without removing them.

### *Grease, oily films and other organic contamination*

Oils and grease may be removed by alkaline formulations or hot water and detergents or, if necessary, by hydrocarbon solvents such as alcohol, acetone or thinners or eucalyptus oil. In all cases the surface should be rinsed with clear water and preferably dried. For directionally grit polished finishes, wiping along the polish direction with very hot clean water and a soft, absorbent cloth is good final step to reduce smears.

### *Adherent Scales and Mortar*

Adherent scales and mortar may be removed chemically but *NOT* using chemicals containing chlorides. *NEVER* use brick cleaning liquids that contain hydrochloric acid. Hot 25% acetic acid (vinegar) or warm 10% phosphoric acid is effective in removing hard water scales and dried mortar splashes. Following the acid wash, the surface should be neutralised with dilute ammonia or sodium bicarbonate solution, rinsed and dried.

### *What to do if tea staining occurs.*

In the event that tea staining does occur, the earlier the action taken the better before the appearance of the underlying surface is changed. It is recommended that you seek professional advice in relation to removing the tea stain and to look at increasing the frequency of washing.