# **CORIUM Z91** "Supra-Ease" Stainless Steel Passivator

### **DESCRIPTION**

A unique compound for brightening and cleaning stainless steel. Its special features are:-

# 1. AN EXTREMELY EASY SYSTEM FOR REJUVENATING STAINLESS STEEL.

The corrosion-resistance properties of stainless steels is provided by a very thin, invisible oxide film that completely covers the surface and prevents further oxidation from taking place. This surface oxidation can be increased by chemical immersion in solutions of strong acids in which copper and uncoated wire nails have been dissolved. This type of process is not practical for field work, or maintenance applications.

Corium Z91 is a brightening system that improves the corrosion resistance of stainless steel yet, requires no special equipment, no mixing of chemicals, no special tanks and no special knowledge of the system. All that is necessary is to apply Corium Z91 on the surface of stainless steel and the corrosion resistance is improved in minutes and often faster.

For optimum corrosion resistance of stainless steel, Corium Z91 is absolutely necessary - it is a must!

#### 2. SUPER CLEANING PROPERTIES

When stainless steel becomes stained, it is difficult to clean. When it is brought to high temperature and becomes heat-oxidized, ordinary deaning compounds just cannot remove the heat marks and burns. For example, when stainless steel is arc welded, a deep discolouration condition usually occurs adjacent to the weld. This area is so severely burnt that ordinary stainless steel cleaning agents are useless and the bad appearance can only be removed mechanically by grinding, sanding, wire brushing, and buffing.

Corium Z91, however, easily removes this burnt surface condition. There is no other easy-to-use system that will clean stainless steel like Corium Z91.

#### 3. IMPROVES CORROSION RESISTANCE TWO WAYS

Corium Z91 also removes all contaminations from the surface, and thus improves corrosion-resistance. When stainless steel is fabricated, its surface picks up iron contamination. This contamination cannot be seen but nevertheless destroys corrosion resistance.

For example, if two identical pieces of stainless steel are used and one of these is brushed with steel wool or a steel wire brush, and the two pieces are placed outdoors, the piece which was not brushed will not rust but the brushed piece will have surface rust due to iron contamination. A piece of machined stainless will have surface rust from the contamination by the cutting tool. Pliers, hack-saw blades, jigs and fixtures, clamps, and all metals that touch stainless steel leave an invisible trail of contamination that causes stainless steel to corrode prematurely. Other contaminants are fingerprints, sweat and the atmosphere. The use of Corium Z91 is a simple, low-cost method that guarantees improved resistance.

#### 4. SUPER EASE OF APPLICATION

It takes no special skill to use Corium Z91. It is in handy liquid form. Just smear the compound on, and flush off with water. In ordinary cases Corium Z91 is applied and immediately removed. In stubborn cases of extreme burns, Corium Z91 can be left on for a short period of time and it will remove even the most stubborn stains by itself, automatically, without mechanical action. After removal, the residues are easily flushed off with water.

# **HOW TO APPLY**

Corium Z91 is an extremely strong compound that cleans stainless steel. It is liquid which is applied with a brush. Do not dilute - use as is.

There are, of course, many different types and many different degrees of tarnish on stainless steel. Therefore the amount of time to leave Corium Z91 on the stainless steel varies with the condition. The best way is to make one test spot and calculate the time required from observing this spot. In general, relatively clean stainless steel will require only about ten to fifteen minutes treatment while highly oxidized stainless steel may require three hours or more.

When stainless steel is welded, the intense heat of the weld deeply burns and oxidizes the stainless steel, It is very costly to remove this by mechanical methods. With Corium Z91, the burned area is coated and, in a few hours, the metal is clean. Do not leave overnight unless this has been tested in advance. An overnight treatment may be too severe. When Corium Z91 is left too long it will first thoroughly clean and deoxidize the stainless but then it will continue working and in turn form a new tarnish of its own. The objective is to leave it on long enough but not too long.

Corium Z91 serves also as a super cleaner before soldering or brazing stainless steel. If the surface to be silver-brazed or soldered is first cleaned with Corium Z91, it will be much easier to braze or solder.

When Corium Z91 is used, no special neutralization is required. Merely flush off thoroughly with water.