



## Aseal 518/519 & 598 Application Guidelines

### **Cleaning**

All surfaces should be thoroughly cleaned and free of oil, dirt, grease and other contamination using a suitable degreasing solvent.

### **Pretreatment**

All metal surfaces to be coated should be pretreated by abrasive blasting using 90 to 120 mesh aluminum oxide grit. Where a very smooth finish is required, a finer grit with a minimum 120 mesh should be used. After grit blasting, parts should be cleaned of any residual grit and dust using an air blast that has been filtered to remove all oil and other contamination from the air.

### **Handling**

After pretreatment, all parts should be handled with clean non contaminated disposable gloves.

Parts should be coated as soon as possible after pretreatment and preferably within 4 hours after blasting. If this cannot be accomplished, parts should be wrapped in clean non contaminating paper such as kraft paper and any openings sealed with tape.

### **Spray Equipment**

These coating compounds are relatively thin. Most standard paint spray equipment that will produce a fine atomization can be used; hard to reach areas can sometimes be more easily coated using a small touch up gun. Pressure feed or suction systems can be used. If spraying on a large production basis it may be advantageous to use a recirculating spray system to keep the aluminum in suspension.

This material is acidic in nature and although it is buffered and will generally not attack steel surfaces, for high production use we recommend stainless steel nozzles and needles, for recirculating pumps, lines, and storage tanks. Magnesium, galvanized, and cadmium plated materials should **not** be used as these materials will be readily attacked by the coating compound.

### **Coating Application**

Aseal 518 & 519: We recommend a minimum of 1.5 mils DFT. In some instances where close tolerances must be held the coating thickness may have to be applied at less than 1.5 mils. This should be the exception rather than the normal application. However, for optimum protection 2.0 to 4 mils DFT is preferred. After applying the first coat and allowing it to flash off and turn to a matte gray color, parts should be placed in an oven at 175° F. and dried for a minimum of 20 minutes, then cured at 500° F., 600° F. is preferred, for a minimum of 30 minutes. If two coats are to be applied, apply second coat **immediately** after parts are cooled to prevent possible contamination. Repeat procedure on first coat.

### **Post Treatments**

For maximum corrosion protection, these coatings should be made electrically conductive using a suitable burnishing method such as grit blasting, glass beading, tumble burnishing, or post curing at 1050° F. for a minimum of 90 minutes. The post treatment method selected should depend on the final use of the part and the most economical way of producing a conductive surface.

## **Methods**

When parts are burnished by dry grit blasting or by glass bead blasting, an air pressure of 25 to 30 PSI should be used with a suction type blast cabinet and 5 to 10 PSI with a pressure blast cabinet. The coating should only be peened long enough to produce a conductive finish. Using light pressure with probes of an ohm meter held 1" apart, a reading of 10 ohm or less should be obtained. For applications where an extremely smooth finish is required tumble burnishing is preferred.

## **Treatment Prior to Sealcoat**

Aalseal 598: This post treatment serves two purposes.

1. To provide a smoother surface finish.
2. To retard the sacrificial properties of the aluminum, thereby extending the corrosion protection of the coating in salt environments.

For optimum results Aalseal 598 should be applied over a grit blasted post treated surface using a 240-320 mesh aluminum oxide grit. The finer grit will provide a smoother surface.

After the surface has been grit blasted and checked for conductivity, the seal coat is applied using the same spray equipment used for Aalseal 518, and 519. However, the gun should be adjusted to produce an even, fine and well atomized spray resulting in a thin but wet, glossy appearing surface. It is better to make several passes with the spray gun to produce this surface in order to apply the sealer as uniformly as possible and to avoid a blotchy appearance. When dry the coating will be only 0.1 to 0.2 mils thick. If the sealer is applied too heavy it will produce a dull surface appearance which can be easily scratched.

Runs and sags should be immediately washed off, surface should be dried and recoated.

After the sealer has flashed off for a minimum of 20 minutes, it should be placed in a drying oven at 175° F. for a minimum of 20 minutes, followed by a cure at 600F. for a minimum of 30 minutes.

**Note:** Since these coatings are used by various specifying agencies there may be reasons for deviation from the procedures outlined herein. In all cases, the specification of the specifying agency should be strictly and completely followed and take precedence over any other application data.