



Description

AC-818-C-PERC is an air curing, general-purpose peelable coating that provides protection to metallic surfaces during mechanical fabrication and chemical processing.

Product Performance

AC-818-C-PERC has demonstrated excellent performance when used as a chemical milling maskant and an anodizing stop off. A major breakthrough in the science of adhesion control has been incorporated into AC-818-C-PERC. As a result, lower, more uniform adhesion is obtained both before and after processing regardless of the alloy or pre-coat method used.

AC-818-C-PERC was specifically formulated to provide excellent bubble release and flow properties.

Product Characteristics (as shipped)

Appearance	Blue/green Viscous Liquid
Solids Content (% by weight)	26.0 ± 2.0
Solids Content (% by volume)	30.0 ± 2.0
Coverage (ft²/mil of dry film/gal.)	500
Weight (Lbs./Gal.)	12.9 + 0.2
Flash Point (Pensky Martens)	None to boiling
Storage Life (Ambient Temperatures)	2 years in sealed containers.
Solvent System	Perchloroethylene

Product Characteristics - Cured Film (Typical Results)

Tensile Strength (psi)	700 lb. Minimum	
Elongation	300% minimum	
Resistance to Acid/Alkaline Solutions	Excellent (In very aggressive acid solutions such as those found in the chemical milling of steel and titanium, AC-832 Topcoat may be desired.)	
Adhesion (Typical values in oz./inch width)	Before Processing	After Processing
7075-T6 Bare Aluminum, solvent wiped	10-16 oz.	16-24 oz.
7075-T6 Clad Aluminum, solvent wiped	8-14 oz.	14-24 oz.
7075-T6 Bare Aluminum, deoxidized	10-16 oz.	18-24 oz.
7075-T6 Clad Aluminum, deoxidized	10-16 oz.	18-24 oz.
17-7 Stainless Steel, grit blasted	40-60 oz.	40-60 oz.



Product Precautions

WARNING! CONTAINS PERCHLOROETHYLENE. HARMFUL OR FATAL IF SWALLOWED. VAPOR HARMFUL IF INHALED. KEEP OUT OF REACH OF CHILDREN. Avoid prolonged or repeated breathing of vapor. Use with adequate ventilation. Keep away from heat, sparks, hot glowing surfaces, and open flame. Keep container closed when not in use. Avoid prolonged or repeated contact with skin. **DO NOT TAKE INTERNALLY.** Consult **MATERIAL SAFETY DATA SHEET** for handling and safety information.

Packaging –

AC-818-C-PERC is furnished in 5 gallon pails and 55 gallon F.O.T. nonreturnable steel drums and, by special arrangement, in 350 gallon deposit liqui-bins.

Product Use Instructions

General –

The directions and recommendations given below are intended to serve as a guide and may need modification to meet local conditions.

Mixing –

AC-818-C-PERC should be thoroughly mixed prior to use and remixed at least once per eight hour shift. Avoid introducing air into the coating during mixing. Parts must be clean and dry before coating for optimum performance.

Thinning –

Thin with perchloroethylene to the desired viscosity. Approximately 11 gallons of perchloroethylene will reduce the viscosity to 30 to 32 seconds in a #5 EZ Zahn cup. Should the material thicken during use due to evaporation, thin with perchloroethylene.

Recommended Dry Film Thickness –

Eight to twelve mils, depending on the process requirements.

Cure Cycle –

Allow the film to air cure for 4 hours minimum at 65°F. or above. At lower temperatures allow additional curing time. AC-818-C-PERC films may be baked at 150°F. for 30 to 60 minutes after an initial air cure of 1 to 2 hours should faster processing be required.

Dip/Flow Application

Optimum bubble release and flow properties are obtained at 14 - 17 seconds viscosity in a #5 Zahn cup. Apply three coats allowing the film to dry tack free between applications. Rotate the parts 180° between the second and third coats to obtain more uniform film thickness. Resultant dry film build should be 10 to 12 mils on most parts. Should additional film build be desired, apply a fourth coat.

When a properly designed dip tank is incorporated, a two-coat system may be used on parts that have a 3-foot flow pattern or more. Control the viscosity at 30 to 34 seconds with a #5 EZ Zahn cup. Rotate the parts 180° between the coats. Allow the first coat to dry tack free before applying the second coat. On parts shorter than 3 feet, apply three coats reversing between the 2nd and 3rd coats.

Airless Spray Application

Equipment –

1. Cold or hot circulating 25:1 or 30:1 airless spray unit.
2. Tips - Graco 163-721, 163-821 or equivalent, for parts larger than 12" x 12".
Graco 163-415 or equivalent, for extrusions and very small parts.
3. Tip Filter Unit - Consists of 1 only Graco 205-264 tip filter 100 mesh, and 1 only Graco 220-253 tip filter unit.



Pressures and Temperatures –

1. Air Pressure - 55 psi to 60 psi.
2. Back Pressure (Hot Airless) - 1600 psi.
3. Temperature (Hot Airless) - 130°F. to 160°F.
4. Fluid Pressure - 1600 psi.

Application –

Hold the spray gun 10 to 14 inches from the part. The speed with which the spray gun is moved determines the quality of the sprayed film. The more rapidly the spray gun is moved over the part, the better the quality of the film.

Airless Spray

1. Apply one fast box coat. Dry tack free.
2. Apply two fast box coats. Allow to dry tack free.
3. Apply two or three box coats. Allow to dry.
Resultant film build should be 8 to 10 mils.

Note: Optimum viscosity for airless spray application is 15 seconds #5 Zahn. This will require approximately 20 gallons of perchloroethylene per 55 gallons of maskant.

A box coat consists of a series of vertical and horizontal passes over the same surface. A 50 to 75% overlap is used depending on the speed with which the spray gun is moved.

Warranty

The following warranty is made in lieu of all other warranties, either expressed or implied. This product is manufactured of selected raw materials by skilled technicians. Neither seller nor manufacturer has any knowledge or control concerning the purchaser's use of this product and no warranty is made as to the results of any use. The only obligation of either seller or manufacturer shall be to replace any quantity of this product, which is proved to be defective. Any claim of defective product must be received in writing within one (1) year from date of shipment. Neither seller nor manufacturer assumes any liability for injury, loss, or damage resulting from use of this product.

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