



TECHNICAL BULLETIN

AC-820-B-TAN

Flammable

Description

AC-820-B-TAN is an air curing, hand peelable concentrated coating that provides protection to metallic surfaces during forming, transportation, fabrication, chemical processing, chemical milling, metal bonding, and storage.

Product Performance

AC-820-B-TAN resists the solutions used in the pre-bond cleaning line and performs satisfactorily in both the 250°F. and 350°F. bonding processes.

AC-820-B-TAN demonstrates excellent performance when used as a chemical milling maskant and an anodizing stop off. Lower, more uniform adhesion values are obtained before and after processing regardless of the alloy or precoat cleaning method used.

Do not immerse AC-820-B-TAN in solvents or vapor degreasers as they will dissolve the coating.

Product Characteristics (as shipped)

Appearance	Tan Viscous Liquid
Solids Content (% by weight)	38.0 ± 2%
Solids Content (% by volume)	28.0± 2%
Coverage (ft ² /mil of dry film/gal)	450
Weight (lbs./gal.)	8.40 ± 0.2
Flash Point (Pensky Martens)	45°F.
Storage Life (Ambient Temperatures)	2 years in sealed container
Solvent System	Toluene and Xylene

Product Characteristics (cured film)

Tensile Strength (psi)	700 lbs. Minimum
Elongation	300% Minimum
Adhesion (Typical Values in oz./in. width)	
2024-T3 Clad Aluminum, solvent wiped	8-16 oz./inch
2024-T3 Etched and deoxidized bare aluminum	10-24 oz./inch
2024-T3 Bare Aluminum, solvent wiped	10-24 oz./inch
Resistance To Acid/alkaline Solutions	Excellent

Product Precautions -

DANGER ! FLAMMABLE! CONTAINS TOLUENE AND XYLENE. HARMFUL OR FATAL IF SWALLOWED. VAPOR HARMFUL IF INHALED. KEEP OUT OF REACH OF CHILDREN. Keep away from heat, sparks, hot glowing surfaces, and open flame. Keep container closed when not in use. Use with adequate ventilation. Avoid breathing vapor. Avoid prolonged or repeated contact with skin. While spraying, wear a suitable mask to prevent inhalation of overspray. **DO NOT TAKE INTERNALLY. CONSULT MATERIAL SAFETY DATA SHEET FOR HANDLING AND SAFETY INFORMATION.**

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.

Product Packaging –

AC-820-B-TAN is furnished in 5 gallon pails and 55 gallon F.O.T. nonreturnable steel drums.

Mixing –

AC-820-B-TAN should be thoroughly mixed prior to use and remixed at least once every 4 hours after thinning. Avoid introducing air into the coating during mixing. Parts must be clean and dry before coating for optimum performance.

Thinning –

AC-820-B-TAN is a high solids concentrate. Thin 2 gallons of AC-820-B-TAN with 1 gallon of TOLUENE for airless spray application. In very hot humid weather, thin with 0.5 gallons toluene and 0.5 gallons of xylene for each 2 gallons of AC-820-B-TAN.

Recommended Dry Film Thickness –

6 - 12 mils depending on the process requirements.

Cure Cycle –

Allow the film to air cure for 4 hours minimum at 75°F. or above. At lower temperatures allow additional curing time. An oven cure for 60 minutes @ 135°F. may be used after air drying for one hour to speed processing.

Optimum performance in plating and anodizing will be obtained by baking at 200°F. for one hour after the initial air dry or forced cure.

Airless Spray Application

Equipment –

1. Cold or hot circulating 25:1 or 30:1 airless spray unit.
2. Tips - Graco 163-721, 163-821, 163-823 or equivalent.
3. Tip Filter Unit - consists of:
 - 1 only, Graco 205-264 tip filter 100 mesh
 - 1 only, Graco 220-253 tip filter unit

Pressures and Temperatures –

1. Air Pressure to pump: Cold Airless 60 - 70 psi, Hot Airless 90 psi.
2. Back Pressure (Hot Airless): 1800–2100 psi, or when no pressure gauge is present, 1 cycle per 5 seconds with the air pressure set at 90 psi.
3. Maskant Temperature: Cold Airless 70°F. minimum, Hot Airless 130°F. - 150°F.

Application –

Hold the spray gun 10-14 inches from the part. The speed with which the spray gun is moved over the part determines the quality of the sprayed film. A slow moving spray gun with wide overlaps produces spongy films. The more rapidly the spray gun is moved over the part, the better the quality of the dry film. The optimum speed of the spray gun over the part is 3-4 feet/second.

1. Apply one box coat or 2 vertical passes over the part. Allow to dry tack free.
2. Apply two box coats or 4 vertical passes over the part. Allow to dry tack free.
3. Apply two box coats or 4 vertical passes over the part. Allow to dry tack free.
4. Apply two box coats or 4 vertical passes over the part. Allow to dry. The resultant dry film build should be 10 to 12 mils.



A box coat consists of a series of vertical and/or horizontal passes over the same surface. A 50-75% overlap is used, depending on the speed with which the spray gun is moved. On each application of the maskant, the sprayed film should appear uniform, shiny and free of orange peel or dry spots. Should sags or air appear in the maskant film, too much maskant was applied at one time or the spray gun was moved too slowly over the part.

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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