



AC-[®]131 Conversion Coatings For Metal Alloys

SIN #834-100

Description

AC-[®]131 is a high-performance, non-chromated, conversion coating for applications on aluminum, nickel, and titanium alloys. The AC-[®]131 application is applicable for parts subsequently finished with epoxy-based and polyurethane-based organic coatings.

Currently, a surface preparation technique such as alodine is used to provide acceptable surfaces for coating applications. This hazardous materials and waste produced by this procedure is both environmentally and economically unacceptable. AC-[®]131 provides an excellent environmentally friendly alternative to achieve the high performance required.

When used with the leading organic primers and topcoats, AC-[®]131 provides an economical and environmentally superior alternative to more costly and hazardous processes. AC-[®]131 provides equivalent or better wet and dry adhesion performance than many of the current surface preparations techniques. This is true of both OEM and Repair/Repaint (scuff and sand) applications.

Simply, AC-[®]131 may be applied to surfaces either by brush, dip or spray on at ambient drying conditions.

Surface Preparation

AC-[®]131 may be applied after cleaning to a 'water-break free' surface. Alkaline cleaning will usually provide a 'water-break free' surface. Chemical etching and deoxidizing is generally not required. Manual deoxidation can be accomplished by either Scotch Brite pad abrasion or sanding with #180 grit or finer Aluminum Oxide sandpaper.

Qualified Specifications

BSMS-25-002 (Titanium) – Qualified Type I
AC-131, AC-131 BB, AC-131 CB

BMS10-128 Qualified Type I, Class A, Grade A

Other Useful Specifications

BAC 5663	(Aluminum)
BAC 5665	(Titanium, CRES, Nickel)
BSPS 07-002	(Titanium)
D6-1816	(Aircraft Painting)
AAC 1.2	(Aluminum)

Patents

One or more of the following US Patents represents AC-[®]131:

5,939,197	5,869,141	5,869,140
5,866,652	5,849,110	5,814,137
5,789,085		

Physical and Application Properties

Color	As mixed it is slightly cloudy un-tinted, or blue if tinted
Induction Time	30 minutes
Pot Life	24 Hours after mixing

Standard Package Sizes and Coverage

<u>Kit Designation</u>	<u>Coverage ft² (m²)</u>
Pint	150 ft ² (13.9 m ²)
Quart	300 ft ² (27.9 m ²)
1 Gallon	1,200 ft ² (111.5 m ²)
5 Gallon	6,000 ft ² (557.5 m ²)
50 Gallon	60,000 ft ² (5,575.0 m ²)

Available Product Configurations

AC- [®] 131	4-Part Clear
AC- [®] 131 BB	2-Part Blue
AC- [®] 131 CB	2-Part Clear



Health and Safety Precautions

AC-®131 is safe to use and apply when recommended precautions are followed. Before using this product, read and understand the Material Safety Data Sheet (MSDS), which provides information on health, physical and environmental hazards, handling precautions and first aid recommendations. An MSDS is available on request. Avoid overexposure. Obtain medical care in case of extreme overexposure

Storage

For BMS10-128, the shelf life of AC-®131 4-Part Configuration, AC-®131BB and CB 2-Part Configuration is 12 months from the date of package when stored in the original unopened containers between 40°F and 100°F. For all other specifications, the shelf life of AC-®131 4-Part Configuration, AC-®131BB and CB 2-Part Configuration is 12 months from the date of manufacture when stored in the original unopened containers between 40°F and 100°F.

Typical Application Technique

Prepare AC-®131 in accordance with instructions. Scale up for size of part and the method of spray application as necessary. Application rate is approximately 1 Quart of AC-®131 for approximately 300 ft² of surface to be coated.

Spray Application

AC-®131 coating solution can be sprayed onto the part surface using a variety of methods including HVLP guns, hand pump sprayers, etc. The solution is applied so as to completely wet the part surface with a mist. Excess solution may run off the part. Larger surface areas may require coating by sections.

AC-®131 is a Boeing Company Licensed Product Under Boegel-EPII

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AC-131-03/10

Seller and manufacturer make no warranty, express or implied, concerning this product, or its merchantability or fitness for any purpose, except that the product conforms to manufacturer's product specifications during its applicable shelf life. User shall determine the suitability of this product for the intended purpose and method of application. Seller and manufacturer's only obligation shall be to replace the quantity of the product proved to be defective. AC TECH shall not be liable for damages in excess of the purchase price of this product.

Allow coated part to drain for 3 to 10 minutes. If there is any surplus AC-®131 solution that has pooled or collected in crevices, pockets, or other collection areas, including drip edges or fastener holes, use filtered compressed air to blow off excess solution. Do not splatter this excess solution onto adjoining part surfaces. Alternatively a cloth pre-wetted with AC-®131 may be used to gently blot, not rub, the surface of pooled solution. Do not blow dry areas of the part that are able to freely drain.

Brush Application

Apply fresh AC-®131 by brushing with a clean natural bristle brush or swabbing with a clean wiper, cheesecloth or gauze. Do not scrub with a brush or applicator. Apply solution to achieve complete coverage of surface to be treated. Brushes or wipers should not leave streaks on the surface.

Allow coated part to drain for 3 to 10 minutes. If there is any surplus AC-®131 solution that has pooled or collected in crevices, pockets, or other collection areas, including drip edges or fastener holes, use filtered compressed air to blow off excess solution. Do not splatter this excess solution onto adjoining part surfaces. Alternatively a cloth pre-wetted with AC-®131 may be used to gently blot, not rub, the surface of pooled solution. Do not blow dry areas of the part that are able to freely drain.

Dry/Cure of AC-®131

AC-131 coated parts may be painted as soon as the surface appears dry but no sooner than 15 minutes, at ambient, from the time of application of the AC-131. When the AC-131 treated surface is to be masked the AC-131 must dry for a minimum of 60 minutes, at ambient, prior to masking. Minimize contact with the part while drying. Exact drying time will vary depending upon part configuration of the part and ambient conditions. Alternately, after drying at ambient temperature for a minimum of 30 minutes parts may be heated to 120°F maximum for an additional 8 hours minimum to facilitate drying. After drying, coated surfaces should be protected from contamination prior to applying the epoxy-based or polyurethane-based organic coating.