

Large-Cabin (ATA 00): Use of Xzilon® 3 Protective Coating on Polished Brightwork and Painted Surfaces

By Jose Veciana, Service Engineering

Gulfstream Service Engineering is always looking for ways to inhibit corrosion from occurring on aircraft. A relatively new product is available from Granitize Aviation International to protect the polished brightwork on the aircraft, as well as provide a further protective layer on the painted areas. The product is known as Xzilon® 3 AECI (Aircraft Exterior Appearance Corrosion Inhibitor).

Larry Sweetser, Aviation Division Director for Granitize Aviation International, listed these benefits of Xzilon 3 in the July 2005 edition of *Aviation International News*:

- Longer paint life against the elements: pollution, Mother Nature, and damaging chemicals
 - Prevents color shift and dulling of the topcoat
 - Prevents corrosion from occurring on the brightwork, holds brightwork polish. Protects painted areas of the aircraft
 - Prevents paint fading and acid rain stains
 - Prevents buildup of engine-exhaust soot
 - Heat-resistant up to 450°F
 - Efficient rain removal and saltwater spray resistant

Brief Description of Application on Polished Brightwork That Has Not Been Previously Treated with Xzilon 3

The brightwork must be polished per the Gulfstream Maintenance Manual prior to application of Xzilon 3. The areas of application must be free of any corrosion and pits to ensure good adhesion of the coating and a long-lasting aesthetic appearance. All polish residues will need to be removed using 100% Isopropyl Alcohol prior to application of Xzilon 3. The cleaning process is most critical. After polishing, the coating must be applied within 12 hours. Air temperature must be between 45° and 90°F and there cannot be visible moisture. Apply by using an H-38X applicator and polish using cotton cloths provided in the kit. It is required to wait 30 to 45 minutes between the three mandatory coat applications. The coating must cure 12 hours prior to next flight. Note: Force cure in a heated hangar is acceptable.

To ensure the coating will last, wipe off condensation on post flights. It is recommended the leading edges be mist sprayed with Granitize XC-11 to remove any bug debris and impact soiling. The same applies to the engine inlet lip skins. The brightwork should not be polished once the leading edges have been coated with Xzilon 3. The coating must be removed prior to any future polishing. It is recommended to wash the aircraft every 15 days if routinely stored outside in maritime or polluted air conditions. Use only Gulfstream-approved cleaners as specified in GV Customer Bulletin (CB) 30 or MIL-C-87750. Bug removal should be accomplished using a super chamois or terry cloth and approved cleaners.

For wing and empennage leading edge applications, Granitize estimates that the coating will have to be re-applied every 90 days depending on the operating environment. Use of a “tape test” per the manufacturer’s instructions can determine if reapplication is required.

Brief Description of Application onto Painted Surfaces

The initial application of Xzilon 3 onto painted surfaces requires the surface to be cleaned with a XC-12 2,000-grit polymer clay bar and the company’s XC-11 Spray and Shine formula. Doing so removes old materials and allows for a smooth, improved surface for the Xzilon 3 to be applied to. Once surfaces are treated, apply three coats of Xzilon 3 in twenty-minute intervals. Be sure to wipe it off with a cotton cloth supplied in the kit before it dries, otherwise it will

leave streaks. Once Xzilon 3 has been applied onto the aircraft, it is recommended to reapply every 400-600 flight hours, depending on flight and storage environment. The reapplication requires an alcohol-based cleaning with Granitize XG-5 and three coats of Xzilon 3.

From evaluations conducted and data evaluated, Gulfstream Service Engineering is confident that this product will not harm the structure and may provide longer corrosion-free life to the structure on large-cabin aircraft. It is common knowledge that other airframe manufacturers also have no technical objection to using this product.

It is essential for all of the manufacturer's recommendations, both in application and maintaining of the coating, to be used during actual application for in-service use.

To authorize the use of this material, Gulfstream will provide letters of no technical objection to customers on an as-requested basis.

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Xzilon No. 3

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The Service Edge

ALL (ATA 00): 2006 Gulfstream Operators' Conference Preview

By Tim Steinhauser,

Make your plans now for the 2006 Gulfstream Operators' Conference!

Our plans are well underway for this year's Operators' Conference – scheduled for Monday, June 5 through Thursday, June 8 at the Savannah International Trade and Convention Center. In 2004, over 600 operators representing the worldwide Gulfstream fleet gathered in Savannah for four days of technical updates and networking opportunities.

