

SIL No. 30-0001

ISSUED: 10 Jan 2013

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SUBJECT: Ice-Phobic Coating Streaking

Aircraft Type: Eclipse 500

Effectivity: 0001-0300

Applicability: Aircraft with SB 500-99-004 Incorporated

## 1. SUMMARY:

This letter provides information regarding streaking of the ice-phobic coating around the static ports.

## 2. BACKGROUND

On aircraft certified for Flight into Known Icing (FIKI) the ice-phobic coating applied around the static ports is an integral component of the complete ice protection system. The coating (PhaseBreak ESL) is a two-part Epoxy that reduces ice particle adhesion (ice-phobicity). It is a unique formulation of epoxy, ethoxy silicates and freezing point depressants. The epoxy formulation creates a surface that is difficult for ice to adhere to, and the freezing point depressants slowly leach to the surface and mix with precipitation to lower the freezing point of the precipitation that is encountered.

After application of the coating, some customers have noted the appearance of streaks on the fuselage emanating from the coating area. The amount of streaking tends to diminish over time.

## 3. ECLIPSE ACTION

The recommendations contained in this SIL effectively address the described condition; no additional service action is required.

## 4. SUGGESTED OPERATOR ACTION

Immediately after application of the coating, the rate at which the freezing point depressant leaches to the surface is relatively high, particularly in a humid environment. It is not uncommon for the freezing point depressant to leach out in sufficient quantity after a new application to leave streaks, particularly in rain or high humidity. This tendency will dissipate quickly as the coating continues to harden.

The freezing point depressant should not harm the polyurethane topcoat applied to the aircraft fuselage and is readily soluble in water. It can be removed by wiping the affected area with a wet cloth.

The quantity of freezing point depressant contained in the ice-phobic decreases as it performs its intended function. Thus, to ensure it continues to provide the necessary protection, the ice-phobic coating must be tested periodically in accordance with the maintenance requirements defined in Chapter 5 of the Aircraft Maintenance Manual (AMM), currently every 50 flight hours or 3 months (whichever occurs first). If re-application of the coating becomes required, the procedures can be found in AMM 20-09-00.

EAI encourages operators to report ice-phobic coating testing results to support product enhancements such as performance improvements and extension of testing intervals.

**INFORMATIONAL. This service letter is for informational purposes only.**