

BOMBARDIER

Toronto Site

PROPRIETARY INFORMATION

PPS 39.09

PRODUCTION PROCESS STANDARD

APPLICATION OF COSMETIC TREATMENT ON DE-ICER BOOTS

- Issue 5
- This standard supersedes PPS 39.09, Issue 4.
 - Vertical lines in the left hand margin indicate changes over the previous issue.
 - Direct PPS related questions to PPS.Group@aero.bombardier.com or (416) 375-7641.
 - This PPS is effective as of the distribution date.

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1 SCOPE

- 1.1 This Production Process Standard (PPS) specifies the procedure and requirements for the application of cosmetic treatment to installed de-icer boots immediately before final delivery of the aircraft.
 - 1.1.1 This PPS complements the engineering drawings that specify its use as an authorized instruction. The procedure specified in this PPS shall be followed to ensure compliance with all applicable specifications. In general, if this PPS conflicts with the engineering drawing, follow the engineering drawing. The requirements specified in this PPS are necessary to fulfil the engineering design and reliability objectives.
 - 1.1.2 Refer to [PPS 13.26](#) for the subcontractor provisions applicable to this PPS.
 - 1.1.3 Procedure or requirements specified in a Bombardier BAPS, MPS, LES or P. Spec. **do not** supersede the procedure or requirements specified in this PPS. Similarly, the procedure and requirements specified in this PPS are not applicable when use of a BAPS, MPS, LES or P. Spec. is specified.

2 HAZARDOUS MATERIALS

- 2.1 Before receipt at Bombardier Toronto, all materials shall be approved and assigned Material Safety Data Sheet (MSDS) numbers by the Bombardier Toronto Environment, Health and Safety Department. Refer to the manufacturer's MSDS for specific safety data on any of the materials specified in this PPS. If the MSDS is not available, contact the Bombardier Toronto Environment, Health and Safety Department.

3 REFERENCES

- 3.1 [PPS 13.26](#) - General Subcontractor Provisions.
- 3.2 [PPS 31.17](#) - Solvent Usage.

4 MATERIALS AND EQUIPMENT

4.1 Materials

4.1.1 B.F. Goodrich De-Icer Boots

- 4.1.1.1 B.F. Goodrich Shinemaster Cosmetic Treatment.
- 4.1.1.2 B.F. Goodrich Shinemaster Prep Cleaner.
- 4.1.1.3 Liquid Hand Soap (e.g., Swish #4799).
- 4.1.1.4 Lint-free wiping cloth (e.g., DSC 378-3).

4.2 Aerazur De-Icer Boots

- 4.2.1 Aerazur Special Soap 100066.
- 4.2.2 Turtle Wax Super Hard Shell Liquid Wax, T-123/T-127.
- 4.2.3 Lint-free wiping cloth (e.g., DSC 378-3).

4.3 Equipment

- 4.3.1 Bombardier approved safety glasses.
- 4.3.2 Protective gloves, neoprene (e.g., DSC 422-5).

5 PROCEDURE

5.1 General

- 5.1.1 Apply cosmetic treatment during final delivery preparation of the aircraft.
 - 5.1.1.1 For B.F. Goodrich de-icer boots, apply B.F. Goodrich Shinemaster according to [section 5.2](#). Do not apply Shinemaster cosmetic treatment to non-rubber surfaces.
 - 5.1.1.2 For Aerazur de-icer boots, apply Super Hard Shell Liquid Wax according to [section 5.3](#).
- 5.1.2 The cosmetic treatment will not repair de-icers which are physically or chemically damaged.
- 5.1.3 Perform a thorough inspection of all de-icers before applying cosmetic treatment. Do not apply cleaner or treatment to damaged de-icer boots.
- 5.1.4 Do not scrub the de-icer boot while cleaning or applying the cosmetic treatment.

5.2 B.F. Goodrich De-Icer Boots

5.2.1 Cleaning and Preparation of De-Icer

- 5.2.1.1 Before application of B.F. Goodrich Shinemaster cosmetic treatment according to [section 5.2.2](#), prepare the de-icer boot as follows:
 - Step 1. Wash the boot with soap and warm water to remove any bugs or other debris.
 - Step 2. If necessary, solvent clean the de-icer boot according to [PPS 31.17](#) to remove any dried on tape or other residue which cannot be removed with soap.
 - Step 3. Verify that the de-icer boot is not physically or chemically damaged. Look for cuts, tears, punctures, Skydrol or chemical spills, etc.

- Step 4. Apply B.F. Goodrich Shinemaster Prep cleaner to a clean, lint-free cloth and wipe cleaner over the entire de-icer surface.
- Step 5. Taking care not to scrub, thoroughly wash the de-icer with soap and warm water using a clean, lint-free cloth. Continue washing until the de-icer is rinsed clean of Shinemaster Prep cleaner.
- Step 6. Use warm water to rinse all soap from the boot.
- Step 7. Taking care not to scrub, use a clean, lint-free cloth to dry the de-icer.

5.2.2 Application of B.F. Goodrich Shinemaster

5.2.2.1 To help prevent streaking, allow the cosmetic treatment to dry for at least five minutes between coats.

5.2.2.2 Apply Shinemaster cosmetic treatment as follows:

- Step 1. Soak a clean, lint-free cloth in Shinemaster cosmetic treatment so that it is saturated but not dripping.
- Step 2. Use the cloth to wipe the de-icer boot in parallel, continuous, spanwise strokes until the entire boot is covered (see [Figure 1](#)). Depending on the size of the de-icer, each wipe should cover approximately 1/5 to 1/3 of the de-icer surface.
- Step 3. If the first application of treatment has left voids and/or streaks, apply a second coat of treatment according to [Step 2](#). Avoid over-application, as build up of the treatment can occur.

5.3 Aerazur De-Icer Boots

5.3.1 Cleaning and Preparation of De-Icer

5.3.1.1 Before application of Turtle Wax cosmetic treatment according to [section 5.3.2](#), prepare the de-icer boot as follows:

- Step 1. Wash the boot with Aerazur Special Soap 100066 and warm water to remove any bugs or other debris.
- Step 2. Impregnate a clean, lint-free cloth or sponge with clean warm (122°F maximum) water.
- Step 3. Taking care not to scrub, rub the wiping cloth or sponge on the soapy paste and apply soap over the entire de-icer boot surface.
- Step 4. Thoroughly rinse the de-icer boot with warm water until the entire de-icer boot has been rinsed clean of Aerazur Special Soap 100066.

- Step 5. If necessary, solvent clean the de-icer boot according to [PPS 31.17](#) to remove any dried on tape or other residue which cannot be removed with soap.
- Step 6. Verify that the de-icer boot is not physically or chemically damaged. Look for cuts, tears, punctures, Skydrol or chemical spills, etc.
- Step 7. Taking care not to scrub, use a clean, lint-free cloth to dry the de-icer boot.

5.3.2 Application of Turtle Wax Cosmetic Treatment

5.3.2.1 Apply Turtle Wax Super Hard Shell Liquid Wax as follows:

- Step 1. Pour product onto the foam applicator supplied and spread a thin, even coat over one section at a time in parallel, continuous, spanwise strokes until the entire boot is covered (see [Figure 1](#)). Depending on the size of the de-icer, each wipe should cover approximately 1/5 to 1/3 of the de-icer surface.
- Step 2. Allow product to dry for approximately 1 to 2 minutes.
- Step 3. Fold and quarter the microfiber towel, supplied with the Turtle Wax kit. Use one side of the microfiber to remove polish from the de-icer boot. Turn microfiber over and wipe to a high gloss shine.
- Step 4. If necessary, use a water dampened microfiber towel to remove excess wax and buff lightly with a dry microfiber towel.

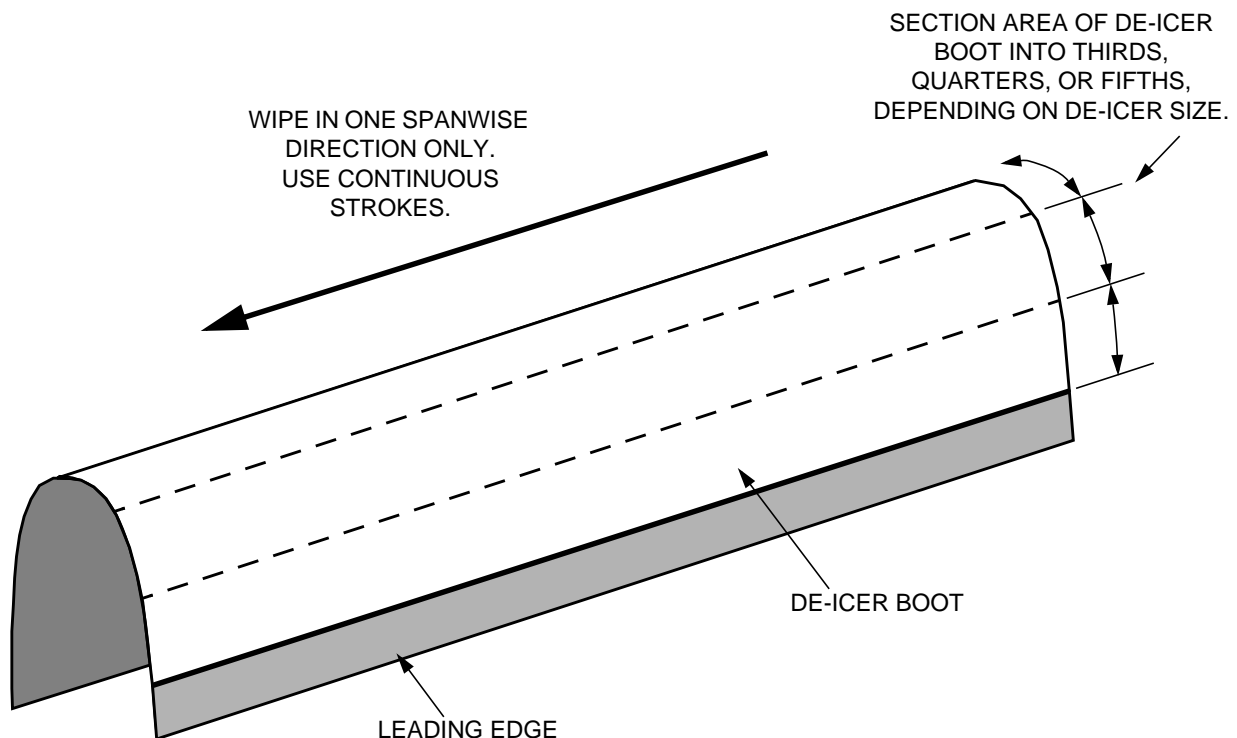


FIGURE 1 - APPLICATION OF COSMETIC TREATMENT

6 REQUIREMENTS

- 6.1 De-icer boots shall be free from all bugs, tape residue, and other debris.
- 6.2 De-icer boots shall be streak free.
- 6.3 On B.F. Goodrich de-icer boots, the Shinemaster cosmetic treatment shall be applied to the entire de-icer boot surface as specified in [section 5.2](#).
- 6.4 On Aerazur de-icer boots, the Turtle Wax cosmetic treatment shall be applied to the entire de-icer boot surface as specified in [section 5.3](#).

7 SAFETY PRECAUTIONS

- 7.1 *Observe general shop safety precautions when performing the procedure specified herein.*
- 7.2 *Wear protective gloves when applying cosmetic treatment.*
- 7.3 *Refer to [PPS 31.17](#) for the safety precautions for handling and using solvents.*

8 PERSONNEL REQUIREMENTS

- 8.1 Personnel responsible for application of cosmetic treatment shall have a good working knowledge of the applicable procedure and requirements as specified herein and shall have exhibited their competency to their supervisor.

9 STORAGE

- 9.1 Store Aerazur Special Soap 100066 at 41°F to 106°F (5°C to 40°C).
- 9.2 Store Turtle Wax Super Hard Shell Liquid Wax at 32°F to 120°F (0°C to 49°C). Keep away from ignition or heat source. Do not allow product to freeze.
- 9.3 Store B.F. Goodrich Shinemaster Prep Cleaner and Cosmetic Treatment at room temperature. Do not allow product to freeze.
- 9.4 Keep B.F. Goodrich Shinemaster products away from strong oxidizing agents.
- 9.5 Keep containers tightly closed and in a well-ventilated area.
- 9.6 Do not use cosmetic products (i.e., B.F. Goodrich Shinemaster and Turtle Wax) exceeding the manufacturer's specified shelf life.