

BOMBARDIER

Toronto Site

PROPRIETARY INFORMATION

PPS 22.09

PRODUCTION PROCESS STANDARD

APPLICATION OF SELF-ADHESIVE METAL LABELS

- Issue 4
- This standard supersedes PPS 22.09, Issue 3.
 - Vertical lines in the left hand margin indicate changes over the previous issue.
 - Direct PPS related questions to christie.chung@aero.bombardier.com or (416) 375-7641.
 - This PPS is effective as of the distribution date.

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Quality

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1 SCOPE

- 1.1 This Production Process Standard (PPS) specifies the procedure and requirements for the application of self-adhesive metal labels to aircraft parts and structures.
 - 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 13.28](#) - Storage Life of Adhesives, Sealants, Paints and Composite Products.
- 3.3 [PPS 21.20](#) - Mixing and Handling Two-Part Sealants.
- 3.4 [PPS 25.50](#) - Use of DSC 233 RTV Silicone Adhesive/Sealant.
- 3.5 [PPS 31.17](#) - Solvent Usage.

4 MATERIALS AND EQUIPMENT

4.1 Materials

- 4.1.1 DSC 233-1 silicone adhesive.
- 4.1.2 DHMS S3.01 sealant.

4.2 Equipment

- 4.2.1 Neoprene rubber gloves (e.g., DSC 422-5).

5 PROCEDURE

5.1 Preparation of Surfaces

- 5.1.1 Immediately before applying the label, solvent clean all surfaces to which labels are to be applied according to [PPS 31.17](#). Ensure that all finger marks, grease, and dirt are removed.
- 5.1.2 Do not touch cleaned areas with bare hands or otherwise subject to contamination.

5.2 Application of Labels

- 5.2.1 Do not apply self-adhesive metal labels to aircraft if the skin temperature is less than 60°F (15°C).
- 5.2.2 If the label is to be applied to a curved surface, roll or bend the label around a mandrel to produce a radius equal to or slightly less than the radius of the part surface. Ensure that the label is a close fit on the surface before removing the backing paper.
- 5.2.3 Apply labels as follows:
- Step 1. Remove the backing paper entirely to expose the adhesive.
 - Step 2. Holding the label by the edges, align the label in position and press down lightly to achieve initial adhesion.
 - Step 3. Ensure that the label is correctly positioned and rub the label down over the entire surface using firm finger pressure.

5.3 Sealing

- 5.3.1 In order to prevent contaminating the labels or bond surfaces, apply all of the labels in the batch as specified in [section 5.2](#) before sealing.
- 5.3.2 Wear neoprene rubber gloves when handling DHMS S3.01 sealant.
- 5.3.3 If specified on the engineering drawing, seal the edges of the label with a thin bead of adhesive or sealant. In cosmetic areas, use DSC 233-1 silicone adhesive. In non-cosmetic areas, use either DSC 233-1 silicone adhesive or DHMS S3.01 sealant.
- 5.3.4 Immediately after applying the adhesive or sealant, smooth the bead down onto the part and label using light pressure.

5.3.4.1 When applying DSC 233-1 adhesive, use bare hands and apply light finger pressure.

5.3.4.2 When applying DHMS S3.01 sealant, use gloved fingers or a suitable tool.

5.3.5 Allow sealed assemblies to cure as specified in [PPS 25.50](#) (for DSC 233-1 adhesive) or [PPS 21.20](#) (for DHMS S3.01 sealant) before further handling.

6 REQUIREMENTS

6.1 The applied label shall be correctly positioned and firmly adhered to the part or structure over the entire surface of the label.

6.2 Reject installations with evidence of lack of adhesion or lifting of the label at the edges.

6.3 Where specified on the engineering drawing, the edges of the label shall be sealed according to [section 5.3](#).

6.4 Sealed assemblies shall be allowed to cure at 60 to 90°F for a minimum of 4 hours before further handling.

7 SAFETY PRECAUTIONS

7.1 *Observe standard plant safety precautions when performing the procedure specified herein.*

7.2 *Refer to [PPS 31.17](#) for the safety precautions for handling and using solvents.*

7.3 *Refer to [PPS 21.20](#) for the safety precautions for handling and using DHMS S3.01 sealant.*

7.4 *Refer to [PPS 25.50](#) for the safety precautions for handling and using DSC 233-1 adhesive.*

8 PERSONNEL REQUIREMENTS

8.1 Personnel responsible for applying self-adhesive metal labels 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 Refer to [PPS 31.17](#) for storage requirements of solvents.

9.2 Refer to [PPS 25.50](#) for storage requirements of DSC 233 adhesive.

9.3 Refer to [PPS 21.20](#) for storage requirements of DHMS S3.01 sealant.

9.4 Refer to [PPS 13.28](#) for the storage life of sealants and adhesives.

10 ADDITIONAL INFORMATION

- 10.1 After use, a small plug of adhesive or sealant may form in the neck of the tube. Remove this plug before the next application.
- 10.2 Paint adhesion problems can occur on surfaces contaminated with sealant or adhesive. Take the following precautions to avoid contaminating the other areas with adhesive:
 - 10.2.1 Discard cleaning cloths contaminated with sealant or adhesive after each single cleaning. Do not clean or re-use the cloths.
 - 10.2.2 Immediately after sealing, use the solvent specified in [PPS 31.17](#) to carefully clean gloves or other tools which are contaminated with sealant or adhesive. This helps to prevent the contamination of other areas of the aircraft components.