

# BOMBARDIER

Toronto (de Havilland)  
PROPRIETARY INFORMATION

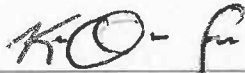
# PPS 9.54

## PRODUCTION PROCESS STANDARD

### Installation of Fyrejacket Sleeving

- Issue 1 - This is a new standard.
- This PPS is effective as of the distribution date.
  - Validation of issue status is the responsibility of the user.

Approved By:



(Bruce Campbell)

JAN 9, 2017

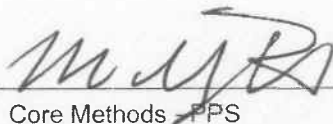
Materials Technology

  
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JAN 12 2017

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January 6, 2017

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## **Issue 1 - Summary of Changes**

This is a new PPS based upon information previously specified in PPS 9.04 Issue 48.

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## 1 Scope

- 1.1 This Production Process Standard (PPS) specifies the procedure and requirements for installation of Fyrejacket sleeving.
  - 1.1.1 This PPS complements the engineering drawings that specify its use as an authorized instruction. The procedure specified in this PPS must 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.

## 2 Hazardous Materials

- 2.1 Before receipt at Bombardier Toronto (de Havilland), all materials must be approved and assigned Material Safety Data Sheet (MSDS) numbers by the Bombardier Toronto (de Havilland) 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 (de Havilland) Environment, Health and Safety Department.

## 3 References

### 3.1 General

- 3.1.1 Unless a specific issue is indicated, the issue of the reference documents specified in this section in effect at the time of manufacture shall form a part of this specification to the extent indicated herein.

### 3.2 Bombardier Toronto (de Havilland) Process Specifications

- 3.2.1 [PPS 13.26](#) - General Subcontractor Provisions.

## 4 Materials and Equipment

### 4.1 Materials

- 4.1.1 Unless otherwise specified in this section, use only the materials specified; use of superseding or alternative materials is not allowed.

- 4.1.2 Fyrejacket sleeving as specified by the relevant engineering drawing.
- 4.1.3 DSC 91-2-3A pressure sensitive glass cloth tape.
- 4.1.4 Fiberglass lacing tape, silicone resin impregnated, size 3 (0.077" - 0.094" wide and 0.013" - 0.019" thick) to A-A-52083-F-3.

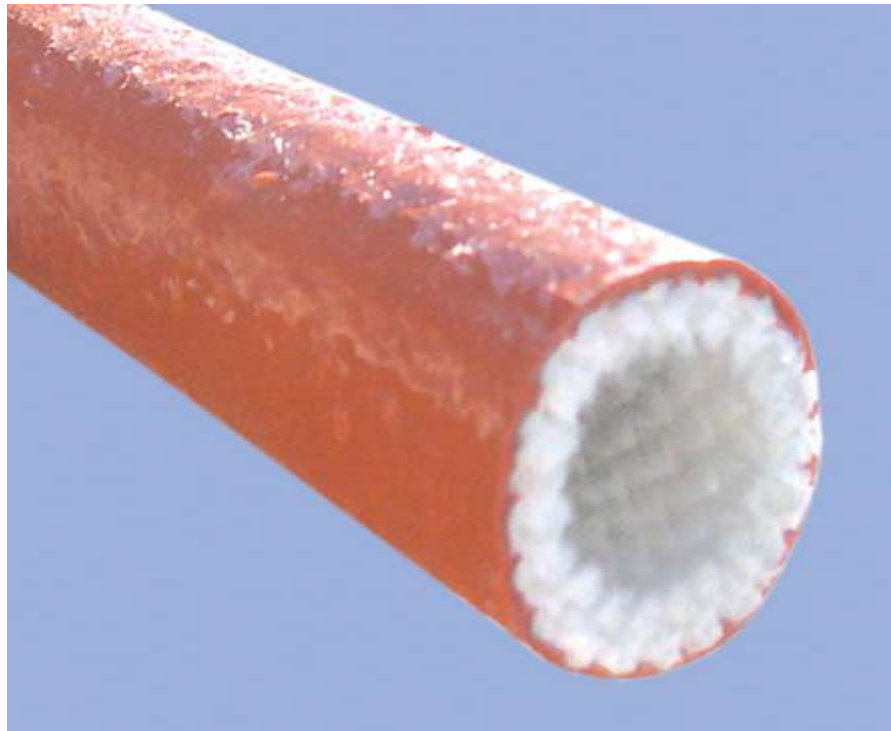
## 4.2 Equipment

- 4.2.1 Suitable sharp cutting tools for trimming and slitting Fyrejacket sleeving.

## 5 Procedure

### 5.1 General

- 5.1.1 Fyrejacket® Aerospace Grade is a thickwall braided fiberglass sleeving coated with specially compounded silicone rubber. Fyrejacket sleeving is intended to slide on easily over a variety of wires or cables.



**Figure 1. Fyrejacket Sleeving (typ.)**

## 5.2 Installation of Fyrejacket Sleeving

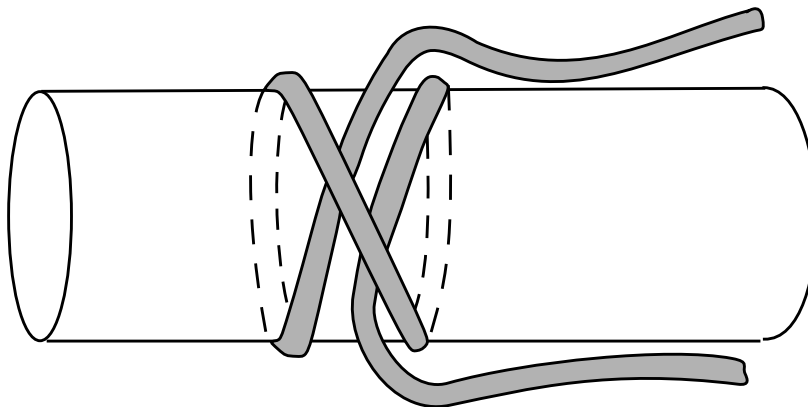
5.2.1 Where the engineering drawing specifies oversleeving of electrical wire bundles and/or harnesses with Fyrejacket sleeving, install the sleeving according to the engineering drawing instructions and as follows:

- Step 1. Unless otherwise specified by the engineering drawing, trim Fyrejacket sleeving so that the sleeving extends to butt against the backshell at connector terminations.
- Step 2. Unless otherwise specified by the engineering drawing, slit the Fyrejacket along its length to facilitate installation.
- Step 3. Unless otherwise specified by the engineering drawing, at wire breakouts butt the lengths of Fyrejacket sleeving so that the wire bundles or harnesses are not exposed. In the area of the breakout, wrap the butted lengths of Fyrejacket sleeving with DSC 91-2-3A glass cloth tape secured in place using fiberglass lacing tape (ref. para. [4.1.4](#)) tied according to section [5.3](#).
- Step 4. After installation, secure the slit Fyrejacket in place by wrapping spirally with DSC 91-2-3A glass cloth tape up to the connector ends.
- Step 5. Secure the ends of the glass cloth tape by tying with fiberglass lacing tape (ref. para. [4.1.4](#)) tied according to section [5.3](#).

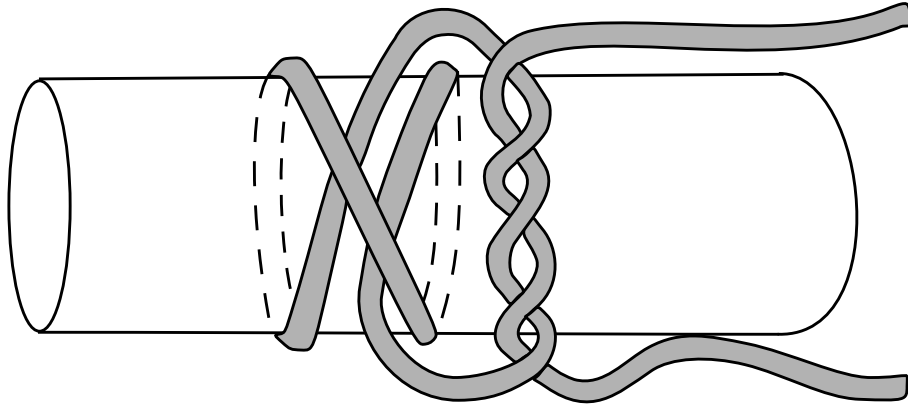
## 5.3 Tying of Fiberglass Lacing Tape

5.3.1 Tie fiberglass lacing tape (ref. para. [4.1.4](#)) as follows:

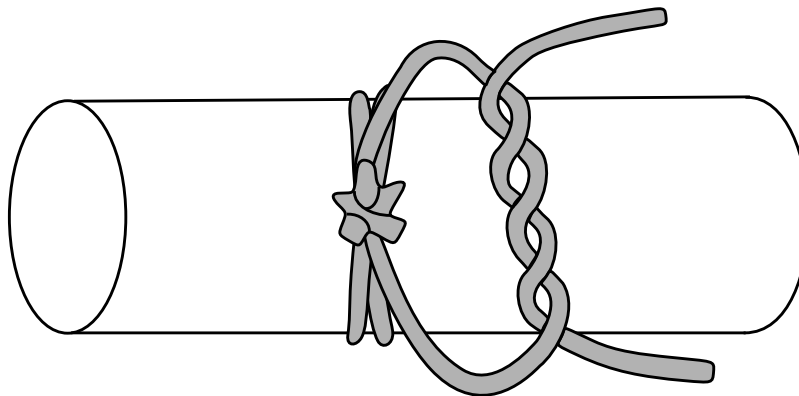
- Step 1. Form a clove hitch around the wire bundle as shown below.



- Step 2. Over the clove hitch, form the first portion of a square knot plus an extra turn as shown and pull tight.



- Step 3. Complete the second portion of a square knot, again with an extra turn, as shown and pull tight.



## 6 Requirements

- 6.1 Trimmed ends and slits in Fyrejacket sleeving shall be cut cleanly (i.e., smooth and even) as shown in [Figure 1](#), without fraying or jagged edges.
- 6.2 Only fiberglass lacing tape (ref. para. [4.1.4](#)) over DSC 91-2-3A glass cloth tape shall be used for securing the ends of Fyrejacket sleeving.
- 6.3 Unless otherwise specified by the engineering drawing, at wire breakouts and connector backshell terminations ensure that the wire bundles or harnesses are not exposed.

## **7 Safety Precautions**

- 7.1 The safety precautions specified herein are specific to Bombardier Toronto (de Havilland) to meet Canadian Federal and Provincial government environmental, health and safety regulations. It is recommended that other facilities consider these safety precautions; however, suppliers, subcontractors and partners are responsible for ensuring that their own environmental, health and safety precautions satisfy the appropriate local government regulations.**
- 7.2 Observe general shop safety precautions when performing the procedure specified herein.**

## **8 Personnel Requirements**

- 8.1 Personnel must have a good working knowledge of the applicable procedure and requirements as specified herein and must have exhibited their competency to their supervisor.