AIRFRAME & POWERPLANT MECHANICS

AIRFRAME TEST GUIDE

Written, Oral, and Practical

ALIGNS WITH

FAA-H-8083-31B & FAA-H-8083-31B-ATB

Airframe & Powerplant Mechanics Airframe Handbook

2026 EDITION



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AIRCRAFT FABRIC COVERING

CHAPTER

3

Fabric Terms, Legal Aspects, Approved Materials, Covering Processes, Determining Fabric Condition, Fabric Strength, Cotton and Polyester

QUESTIONS

3-1 AM.II.B.K9

What is the purpose of a selvedge edge woven into the edges of fabric or finishing tape?

- A. Prevents the woven fabric from unraveling.
- B. Creates a smooth edge negating the need for additional finishing tape.
- C. Allows fabric to lay down smoothly around contoured shapes.

3-4 AM.II.B.K9

When a fabric seam must be made where there is no structure underneath, what method is typically used to attach the seam?

- A. Reinforcing tape
- B. A Sewn seam
- C. Fabric cement

3-2 AM.II.B.K8

An aircraft comes to you with a worn fabric covering. You replace that fabric with a different type of fabric which has previously been approved for that aircraft by an STC. This is considered by FAA as _____

- A. a major alteration.
- B. a minor repair.
- C. a major repair.

3-5 AM.II.B.K15

Fabric rejuvenator is used to _____

- A. restore fabric strength and tautness to at least the minimum acceptable level.
- B. restore the condition of dope coatings.
- C. penetrate the fabric and restore fungicidal resistance.

3-3 AM.II.B.K8

Which type of fabric tape is used on protrusions such as a strut fitting to help prevent the base fabric from tearing?

- A. Reinforcing Tape
- B. Surface Tape
- C. Anti-Chafe Tape

3-6 AM.II.B.K8

Which component of a fabric covering system serves to protect the fabric from ultraviolet (UV) light?

- A. Sealers.
- B. Fillers.
- C. Top coat.



AIRCRAFT FABRIC COVERING

ANSWERS

3-1 Answer A

A selvedged edge produced during a fabrics manufacture locks the other fabric threads into place to prevent the edges from unraveling. The edge of a piece of fabric which is cut to size, thus eliminating the selvedged edge should be done so only with pinking shears as an alternative method to limit raveling.

Ref: Airframe Handbook H-8083-31B-ATB, Chapter 3 Page 2

3-4 Answer B

When a fabric seam must be made with no structure underneath a sewn seam can be used. Fabric cement is used only to attach fabric to pieces of structure. Reinforcing tape is used after the primary fabric covering is installed to protect or strengthen areas for attaching the fabric to ribs. *Ref: Airframe Handbook H-8083-31B-ATB, Chapter 3 Page 5*

3-2 Answer A

According to 14CFR Part 43, changing parts of a wing, tail section or the fuselage when not listed in the original aircraft specifications is considered a major alteration. An FAA form 337 needs to be approved by a certificated A&P mechanic with Inspection Authorization for this alteration to be legal. *Ref. Airframe Handbook H-8083-31B-ATB, Chapter 3 Page 3*

3-5 Answer B

Rejuvenator is a finishing material used to restore resilience to an old dope film. It contains strong solvents to open the dried out film and plasticizers to restore resilience to the old dope.

Ref: Airframe Handbook H-8083-31B-ATB, Chapter 3 Page 7

3-3 Answer C

Anti-chafe tape provides a smooth surface on protrusions or metal seams underneath the base sections of fabric. It is applied after the aircraft is inspected and primed, but before the primary fabric covering is installed.

Ref: Airframe Handbook H-8083-31B-ATB, Chapter 3 Page 4

3-6 Answer B

Fillers, which are sprayed on after the sealers contain solids or other chemicals to block UV light from reaching the fabric. The purpose of sealers, which are applied first, is to surround the fibers of the fabric to keep out dirt and moisture. Topcoats are mostly for appearance purposes and provide just limited protection.

Ref: Airframe Handbook H-8083-31B-ATB, Chapter 3 Page 6

