



BOEING

TEST		SAMPLE SIZE
BSS 7230: F1	Vertical (60 second)	5 pieces: 3" x 12" (75 mm x 305 mm)
BSS 7230: F2	Vertical (12 second)	5 pieces: 3" x 12" (75 mm x 305 mm)
BSS 7230: F3	Horizontal (Maximum Burn Rate 2.5")	5 pieces: 3" x 12" (75 mm x 305 mm)
BSS 7230: F4	Horizontal (Maximum Burn Rate 4.0")	5 pieces: 3" x 12" (75 mm x 305 mm)
BSS 7230: F5	45 Degree	5 pieces: 10" x 10" (250 mm x 250 mm)
BSS 7230: F6	60 Degree (BSS 7324)	15' (4.5 meters)
BSS 7238:	Smoke Density: Flaming & Non Flaming Modes	9 pieces: 3" x 3" x 1" MT (75 mm x 75 mm x 25mm MT)
BSS 7238:	Smoke Density for Wire & Cable Products: Flaming & Non Flaming Modes	Diameter 3.3 mm to 6.4 mm: 18 meters (60') Diameter less than 3.3 mm: 27 meters (90')
BSS 7239:	Combustion Toxicity: Flaming Mode, 6 gases Non Flaming Mode, 6 gases	8 pieces: 3" x 3" x 1" MT (75 mm x 75 mm x 25 mm MT) 8 pieces: 3" x 3" x 1" MT (75 mm x 75 mm x 25 mm MT)
BSS 7239:	Combustion Toxicity for Wire & Cable Products: Flaming & Non Flaming Modes	Diameter 3.3 to 6.4 mm: 18 meters (60') Diameter less than 3.3 mm: 27 meters (90')
BSS 7303:	Oil Burner Seat Cushion Fire Blocking	4 seat backs: 18" x 25" x 2" (457 mm x 635 mm x 51 mm) AND 4 seat cushions: 18" x 20" x 4" (457 mm x 508 mm x 102 mm)
BSS 7322:	Rate of Heat Release	6 pieces: 6.00" x 6.00" x 1.75" MT (150 mm x 150 mm x 45mm MT)
BSS 7323:	Oil Burner Cargo Liner: Sidewall Panel Ceiling Panel Sidewall / Ceiling Combination	4 pieces: 16" x 24" (405 mm x 610 mm) 4 pieces: 16" x 24" (405 mm x 610 mm) 4 pieces: 16" x 24" (405 mm x 610 mm)
BSS 7365:	Insulation (Flame Propagation)	<i>Available on separate quotation</i>
BSS 7387:	Insulation (Burnthrough)	8 pieces: 32" x 36" (813 mm x 915 mm)

Estimated Performance Time: 7 days (14 days if auditing is required)

MT = Maximum thickness.

**BOEING**TEST SELECTION ASSISTANCE (Page 1 of 3)**Introduction**

Products requiring Boeing tests normally follow the same pattern as the FAR as discussed below.

There are two significant differences between the FAR and the Boeing requirements.

- 1.) Boeing may require Smoke Density testing on many products used in their aircraft.
- 2.) Boeing may require Combustion Toxicity testing on many products used in their aircraft.

FAR

This discussion is based on information extracted from CFR Title 14 Part 25.

The information contained herein is offered to assist the client in selecting the test/s to be conducted by Govmark

The information is presented in 3 categories:

1. Aircraft Interiors
2. Aircraft Cargo Compartments
3. Aircraft Thermal and Acoustical Insulation

Selection of the test is primarily dependent on the product and its application in the aircraft.

Some examples follow:

Carpeting: The only test required by the FAR is the 12 second vertical flammability test.
(Except if carpeting is used on wall panel.)

Wall Panels: Three tests are involved:

- a. 60 Second Vertical
- b. OSU Rate of Heat Release
- c. Smoke Density

Please search the attached listings to determine which tests are required for your product.

As this is an informal listing, you might need to contact Govmark so that Govmark can guide you by the actual rule.

**BOEING**TEST SELECTION ASSISTANCE (Page 2 of 3)

Aircraft Compartment Interiors

PRODUCT CLASSIFICATION**REQUIRED TEST****Group I (Part I):**

Galley Structure
Interior Ceiling Panels
Interior Wall Panels
Large Cabinet Walls
Partitions
Stowage Compartments

Vertical (60 Second)
AND
Smoke Density
AND
Rate of Heat Release (OSU)

Group I (Part II):

Structural Flooring

Vertical (60 Second)

Group II (Part I):

Air Ducting	Molded & Thermoformed Parts
Air Ducting Joints	Padding
Coated Fabrics	Textile Products
Draperies	Thermal & Acoustical Insulation
Electrical Conduit	Transparencies
Floor Coverings	Trays & Galley Furnishings
Joint & Edge Coverings	Trim Strips
Leather	Upholstery

Vertical (12 Second)

Group II (Part II)

Seat Cushions: 1. Individual Components
2. Seat Cushion Mockup

Vertical (12 Second)
Oil Burner Seat Cushion Fire Blocking

Group III

Motion Picture Film

Safety Film as per Standard Specifications for Safety
Photographic Film PH 1.25

Group IV

Clear Plastic Windows & Signs
Edge Lighted Instrument Assemblies Consisting of 2 or more
Instruments in Common Housing
Parts Constructed in Whole or in Part of Elastomeric Materials
Seat Belts
Shoulder Harnesses

Horizontal (2.5 in/min)

Group V (Part I)

Items Not Specifically Described Above in Groups I through IV

Horizontal (4 in/min)

Group V (Part II)

Excluded Items: Electrical wire & cable insulations and small
parts such as knobs, rollers, etc. which would not
contribute significantly to the propagation of a fire.

Subject to FAA / DER determination

Extracted from FAR Part 25. Substantially the same guidelines apply to Boeing,
except Smoke Density and Combustion Toxicity might additionally be required.

**BOEING**TEST SELECTION ASSISTANCE (Page 3 of 3)

Aircraft Cargo & Baggage Compartments

<u>PRODUCT CLASSIFICATION</u>	<u>REQUIRED TEST</u>
<u>Group I (Part I)</u> Ceiling & Sidewall Liner Panels Class B & E Compartments	Vertical (12 Second) AND 45 Degree
<u>Group I (Part II)</u> Ceiling & Sidewall Liner Panels Class C Compartments	Oil Burner Cargo Liner
<u>Group II</u> Floor Panels Class B, C, & E Compartments	Vertical (12 Second) AND 45 Degree
<u>Group III (Part I)</u> Insulation Blankets Cargo Covers	Vertical (12 Second)
<u>Group III (Part II)</u> Tiedown Equipment Containers Bins Pallets	Horizontal

Thermal & Acoustical Insulation

<u>PRODUCT CLASSIFICATION</u>	<u>REQUIRED TEST</u>
Insulation Batts Foams Damping Parts Hook and Loop Tape	Insulation (Flame Propagation)
Insulation used in the bottom half of the fuselage require an additional test.	Insulation (Burnthrough)

Engine Compartment Firewalls

<u>PRODUCT CLASSIFICATION</u>	<u>REQUIRED TEST</u>
All firewall components Shrouds Cowling and Nacelle Skin	Power Plant Oil Burner Fire Penetration (2000° F)

Extracted from FAR Part 25. Substantially the same guidelines apply to Boeing, except Smoke Density and Combustion Toxicity might additionally be required.