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400 Commonwealth Dr., Warrendale, PA 15096

**AEROSPACE  
MATERIAL  
SPECIFICATION**

Submitted for recognition as an American National Standard

**AMS 3852A**

Issued 11-1-48  
Revised 1-1-87

Superseding AMS 3852

**FLAME RESISTANT PROPERTIES FOR AIRCRAFT MATERIALS**

This specification has been declared "NUNCURRENT" by the Aerospace Materials Division, SAE. It is recommended that this specification not be specified for new designs.

This cover sheet should be attached to the "A" revision of the subject specification.

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This specification has been declared "CANCELLED" by the Aerospace Materials Division, SAE as of April 14, 1986. By this action subject specification number and title will be deleted from the active specification index of Aerospace Material Specifications.

This specification is under the jurisdiction of AMS Committee "C P".

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# AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.  
29 West 39th Street  
New York City

AMS3852

Issued 11-1-48  
Revised

## FLAME RESISTANT PROPERTIES FOR AIRCRAFT MATERIALS

1. **ACKNOWLEDGMENT:** A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.
2. **APPLICATION:** Primarily intended to apply to interior materials such as coated and uncoated cotton and linen fabrics treated to resist combustion, or materials inherently possessing resistance to combustion, which may be used without further treatment where normal flame resistance is required in commercial transport aircraft.
3. **TECHNICAL REQUIREMENTS:** The material shall be capable of meeting the following test:
  - 3.1 Each of three specimens, approximately 3 inches x 12 inches, shall be clamped in duplicate metal frames (approximately 1/4 inch thick each), so that the exposed area for test purposes shall be at least 2 inches wide and 11-1/2 inches long. In the case of fabric, the specimens shall be cut so that the 12 inch length is in the warp direction. The specimens shall be clamped on three sides, leaving one end free and at least  $\frac{1}{2}$  inch from the end of the frame for ignition purposes. A 10-inch length of the specimen shall be used for timing purposes. Approximately 1- $\frac{1}{2}$  inches should burn before the spearhead of the flame enters the 10-inch timing zone.
  - 3.2 Each specimen shall be supported horizontally for the test, which shall be conducted in a draft-free room. If a coated or napped fabric is used, the coating or nap shall be on the lower surface. Ignition may be made with a match or any other means readily available. The average burn rate of the three specimens over the 10-inch length, if burning progresses that far, shall not exceed 4 inches per minute.
  - 3.3 If the specimens do not support combustion after the igniting flame is applied for 15 seconds, the material may be considered acceptable. Further, if the flame extinguishes itself, any subsequent burning without a flame shall not extend into undamaged areas.
4. **REPORTS:** Unless otherwise specified, the vendor shall furnish with the original sample submitted for approval, three copies of a notarized report of the result of the test noted above showing actual burning rate. After approval, unless otherwise specified, vendor shall furnish with each shipment three copies of a notarized report of the results of the above test made on each grade or type of each lot or shipment of material contained in the order. This report shall include the purchase order number, this specification number, vendor's material number, and quantity.