

# AERONAUTICAL MATERIAL SPECIFICATIONS

## AMS 3840

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc. 485 Lexington Ave., New York 17, N.Y.

Issued 7-1-57  
Revised

### ASBESTOS, POLYTETRAFLUOROETHYLENE IMPREGNATED Sintered

1. **ACKNOWLEDGMENT:** A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.
2. **FORM:** Woven sheet or strip, braided tubing, or as ordered.
3. **APPLICATION:** Primarily for flexible rub strips, gaskets, and air seals requiring resistance to prolonged heating up to 500 F.
4. **MATERIAL AND FABRICATION:** Material shall be made from selected long fiber Grade A chrysotile asbestos, woven or braided into the desired form, and impregnated with approximately the same weight of polytetrafluoroethylene which is then sintered by heating. The product shall contain no metallic reinforcement.
5. **TECHNICAL REQUIREMENTS:**
  - 5.1 **General:**
    - 5.1.1 **Color:** Shall be light gray to dark brown.
    - 5.1.2 **Weathering:** When specified, the product shall have weather resistance acceptable to the purchaser as determined by a procedure agreed upon by purchaser and vendor.
    - 5.1.3 **Corrosion:** The product shall not have a corrosive effect on other materials when exposed to conditions normally encountered in service. Discoloration of metal shall not be considered objectionable.
  - 5.2 **Properties:** The product shall conform to the following requirements; tests shall be conducted on the product supplied and in accordance with the method listed.
    - 5.2.1 **Weight Loss at 900 F based on original dry weight, %, min** 45.0 See 5.2.1.1
      - 5.2.1.1 Place a 2 g sample in a crucible and heat at  $220\text{ F} \pm 2$  to constant weight at room temperature. Heat at  $600\text{ F} \pm 10$  for 24 hr, cool, and weigh. Heat the same sample at  $900\text{ F} \pm 25$  for 3 hr, cool, weigh, and calculate weight loss occurring during the 900 F heating.

Section 7C of the SAE Technical Board rules provides that: "All technical reports including standards approved and practices recommended, are advisory only. Their use is not intended to constitute a contract. The user is advised to refer to the SAE standards and recommended practices, and no commitment is intended to be made by the Society of Automotive Engineers, Inc. or its committees. Technical reports will not investigate or consider patents which may apply to the subject matter. Prospective users of the report are responsible for protecting themselves against liability for infringement of patents."

- 5.2.2 Brittleness After Sintering: After being heated at  $600\text{ F} \pm 10$  for 24 hr followed by heating at  $725\text{ F} \pm 25$  for 1 hr and quenching in water, the specimen shall be capable of being bent flat on itself without causing breaks in the fabric. Tubing shall be split open and bent with the outside surface of the tube wall on the inside of the bend.
6. QUALITY: The product shall be uniform in quality and condition, clean, sound, and free from foreign materials and from imperfections detrimental to fabrication, appearance, or performance of parts.
7. REPORTS:
- 7.1 Unless otherwise specified, the vendor of the product shall furnish with each shipment three copies of a report stating that the product meets the requirements of this specification. This report shall include the purchase order number, material specification number, vendor's compound number, thickness, size, and quantity.
- 7.2 Unless otherwise specified, the vendor of finished or semi-finished parts shall furnish with each shipment three copies of a report showing the purchase order number, material specification number, contractor or direct supplier of material, part number, and quantity. When material for making parts is produced or purchased by the parts vendor, that vendor shall inspect each lot of material to determine conformance to the requirements of this specification, and shall include in the report a statement that the material conforms, or shall include copies of laboratory reports showing the results of tests to determine conformance.
8. PACKAGING:
- 8.1 Packaging shall be accomplished in such a manner as to ensure that the product, during shipment and storage, will not be permanently distorted, and will be protected from exposure to weather or any normal hazard.
- 8.2 Each package shall be permanently and legibly marked to give the following information:

ASBESTOS, POLYTETRAFLUOROETHYLENE IMPREGNATED  
AMS 3840  
FORM \_\_\_\_\_  
SIZE \_\_\_\_\_  
PURCHASE ORDER NUMBER \_\_\_\_\_  
MANUFACTURER'S NAME \_\_\_\_\_  
MANUFACTURER'S DESIGNATION \_\_\_\_\_  
QUANTITY \_\_\_\_\_