



AEROSPACE MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
TWO PENNSYLVANIA PLAZA, NEW YORK, N. Y. 10001

AMS 3286C

Superseding AMS 3286B

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FELT, FIRM PAD, WHITE
100% Wool

1. SCOPE:

- 1.1 Form: This specification covers felted wool fibers in the form of sheets and rolls.
- 1.2 Application: Primarily for oil and grease retention where the felt is confined and compressed in assembly. Also suitable for dust shields where conditions are not severe.

2. APPLICABLE DOCUMENTS: The following publications form a part of this specification to the extent specified herein. The latest issue of Aerospace Material Specifications (AMS) shall apply. The applicable issue of other documents shall be as specified in AMS 2350.

- 2.1 SAE Publications: Available from Society of Automotive Engineers, Inc., Two Pennsylvania Plaza, New York, New York 10001.

2.1.1 Aerospace Material Specifications:

AMS 2350 - Standards and Test Methods

- 2.2 ASTM Publications: Available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.

ASTM D461 - Testing Felt

3. TECHNICAL REQUIREMENTS:

- 3.1 Material and Fabrication: The product shall be made from white wool fibers built up by a suitable combination of mechanical work, chemical action, moisture, and heat, without spinning, weaving, or knitting, to produce a uniform well-felted product.

- 3.2 Properties: The product shall conform to the following requirements. Tests shall be conducted on the product supplied and in accordance with ASTM D461 insofar as practicable; splitting resistance requirements apply only to product 3/16 in. (4.8 mm) and over in thickness.

3.2.1 Tensile Strength, min	225 psi (1551 kPa)
3.2.2 Splitting Resistance, min	8 lb per 2 in. width (35 N/50 mm width)
3.2.3 Actual Wool Content, min	95%
3.2.4 Methyl Chloroform Soluble (See 8.2), max	2.5%
3.2.5 Water Soluble, max	2.5%
3.2.6 Combined Methyl Chloroform + Water Soluble, max	3.0%
3.2.7 Ash Content, max	2.5%

SAE Technical Board rules provide that: "All technical reports, including standards, specifications, and practices recommended, are advisory only. Their use by anyone engaged in industry or trade is entirely voluntary. There is no agreement to adhere to any SAE standard or recommended practice, and no commitment to conform to or be guided by any technical report. In formulating and approving technical reports, the Board and its committees 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."

3.2.8 Weight: Shall be as specified in Table I.

TABLE I

Nominal Thickness Inch	Weight lb per sq yd	Nominal Thickness Inch	Weight lb per sq yd
1/8	0.98 - 1.14	1/2	3.92 - 4.56
3/16	1.47 - 1.71	5/8	4.90 - 5.70
1/4	1.96 - 2.28	3/4	5.88 - 6.84
5/16	2.45 - 2.85	7/8	6.86 - 7.98
3/8	2.94 - 3.42	1	7.84 - 9.12

TABLE I (SI)

Nominal Thickness Millimetres	Weight kg/m ²	Nominal Thickness Millimetres	Weight kg/m ²
3.2	0.532 - 0.619	12.7	2.12 - 2.48
4.8	0.798 - 0.929	15.9	2.66 - 3.10
6.4	1.06 - 1.24	19.0	3.19 - 3.71
7.9	1.33 - 1.55	22.2	3.72 - 4.33
9.5	1.60 - 1.86	25.4	4.26 - 4.95

3.2.9 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.

3.3 Quality: The product shall be uniform in quality and condition, clean, sound, and free from foreign materials and from internal and external imperfections detrimental to fabrication, appearance, or performance of parts.

3.4 Standard Sizes and Tolerances:

3.4.1 Thickness: Standard thicknesses and limits of thickness shall be as specified in Table II.

TABLE II

Nominal Thickness Inch	Actual Thickness Inch	Nominal Thickness Inch	Actual Thickness Inches
1/8	0.105 - 0.145	1/2	0.462 - 0.538
3/16	0.165 - 0.211	5/8	0.581 - 0.669
1/4	0.224 - 0.276	3/4	0.700 - 0.800
5/16	0.284 - 0.342	7/8	0.819 - 0.931
3/8	0.343 - 0.407	1	0.938 - 1.062

TABLE II (SI)

Nominal Thickness Millimetres	Actual Thickness Millimetres	Nominal Thickness Millimetres	Actual Thickness Millimetres
3.2	2.67 - 3.68	12.7	11.73 - 13.67
4.8	4.19 - 5.36	15.9	14.76 - 16.99
6.4	5.69 - 7.01	19.0	17.78 - 20.32
7.9	7.21 - 8.69	22.2	20.80 - 23.65
9.5	8.71 - 10.34	25.4	23.83 - 26.97

3.4.2 Width: Standard width shall be 72 in. (1.83 m).

4. QUALITY ASSURANCE PROVISIONS:

4.1 Responsibility for Inspection: The vendor of the product shall supply all samples and shall be responsible for performing all required tests. Results of such tests shall be reported to the purchaser as required by 4.5. Purchaser reserves the right to perform such confirmatory testing as he deems necessary to assure that the product conforms to the requirements of this specification.

4.2 Classification of Tests: Tests to determine conformance to all technical requirements of this specification are classified as acceptance or routine control tests.

4.3 Sampling: Shall be in accordance with ASTM D461.

4.4 Approval:

4.4.1 Sample material shall be approved by purchaser before material for production use is supplied, unless such approval be waived. Results of tests on production material shall be essentially equivalent to those on the approved sample.

4.4.2 Vendor shall use ingredients, manufacturing procedures, processes, and methods of inspection on production material which are essentially the same as those used on the approved sample material. If any change is necessary in ingredients, in type of equipment for processing, or in manufacturing procedures, vendor shall submit samples for reapproval unless purchaser grants written approval after review of a detailed statement of materials and processing used on the approved sample and those proposed. No production material made by the revised procedure shall be shipped prior to receipt of approval of such procedure.

4.5 Reports:

4.5.1 The vendor of the product shall furnish with each shipment three copies of a report showing the results of tests made on the product to determine conformance to the technical requirements of this specification. This report shall include the purchase order number, material specification number and its revision letter, vendor's material designation, form, size, and quantity.

4.5.2 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 and its revision letter, contractor or other direct supplier of material, supplier's material designation, 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.

4.6 Resampling and Retesting: If any specimen used in the above tests fails to meet the specified requirements, disposition of the product may be based on the results of testing three additional specimens for each original nonconforming specimen. Failure of any retest specimen to meet the specified requirements shall be cause for rejection of the product represented and no additional testing shall be permitted. Results of all tests shall be reported.

5. PREPARATION FOR DELIVERY:

5.1 Packaging and Identification:

5.1.1 Each roll and sheet shall have attached a tag showing AMS 3286C, manufacturer's name or trademark, and grade designation.

5.1.2 Packaging shall be accomplished in such a manner as to ensure that the product, during shipment and storage, will be protected against damage from exposure to moisture, weather, or any normal hazard.