



AEROSPACE MATERIAL SPECIFICATION

AMS3898™**REV. B**

Issued 1975-06
Revised 1994-02
Reaffirmed 2022-04

Superseding AMS3898A

Interleaf Carrier Material, Composite Tape or Broadgoods Paper,
0.004 inch (0.10 mm), Perforated

RATIONALE

AMS3898B has been reaffirmed to comply with the SAE Five-Year Review policy.

1. SCOPE:

1.1 Form:

This specification and its supplementary detail specifications cover interleaf carrier materials in the form of polyethylene film or coated paper tape or sheeting.

1.2 Application:

These products have been used typically to support uncured resin-impregnated, fiber-reinforced tape or broadgoods for composites during shipment, storage, handling, and layup, and to separate layers of composite tape on reels, but usage is not limited to such applications. Perforated material is intended for layup on sprocket-driven tape-laying machines.

1.3 Classification:

The interleaf carrier shall be as specified in the applicable detail specification wherein each material is defined by material description. The material covered by each detail specification appears as part of the title.

2. APPLICABLE DOCUMENTS:

The following publications form a part of this specification to the extent specified herein. The applicable issue of referenced publications shall be the issue in effect on the date of the purchase order.

2.1 ASTM Publications:

Available from ASTM, 1916 Race Street, Philadelphia, PA 19103-1187.

ASTM D 774 Bursting Strength of Paper

ASTM D 827 Edge Tearing Strength of Paper

ASTM D 882 Tensile Properties of Thin Plastic Sheeting

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Documents

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2.2 U.S. Government Publications:

Available from DODSSP, Subscription Services Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

MIL-STD-2073-1 DOD Materiel, Procedures for Development and Application of Packaging Requirements

2.3 AIA Publications:

Available from National Standards Association, Inc., 1321 14th Street N.W., Washington, DC 20005.

NAS 992 Reel, Composite Filament Tape, Automated Machine Layup

3. TECHNICAL REQUIREMENTS:

3.1 Detail Specifications:

Requirements for a specific material shall consist of all requirements specified herein in addition to requirements specified in the applicable detail specification. In case of conflict between requirements of this basic specification and an applicable detail specification, requirements of the detail specification shall govern.

3.2 Material:

3.2.1 Construction: The carrier shall consist of a film or paper-like material as defined in the applicable detail specification.

3.2.2 Splices: The product shall have not more than one splice in any 10 feet (R) (3 m) of length. Splices shall be butted and spliced with pressure sensitive coated polyethylene terephthalate tape on both sides to prevent loose flaps. The strength across any splice shall be equal to, or greater than, that of unspliced carrier.

3.2.3 Perforations: When perforated carrier is specified in the applicable detail specification, parallel rows of perforations shall be located on the carrier adjacent to each edge as shown in Figure 1. (See 8.2).

3.3 Properties:

The product shall conform to the requirements of 3.3.1, 3.3.2, 3.3.3, and 3.3.4 of this specification and those of the applicable detail specification. Tests shall be performed on the product supplied and in accordance with applicable test procedures specified herein.

3.3.1 Release: The surface of the carrier shall release cleanly from the uncured, resin-impregnated material specified in the applicable composite material specification. Release shall be even and uniform, without transfer of resin or fibers from the carrier surface to pressure sensitive tape, determined in accordance with 4.5.1.

3.3.2 Stability: The product shall not be affected by exposure to temperatures of -40 to +40 °C (-40 to +104 °F) and 50% to 80% relative humidity.

3.3.3 Thermal Expansion: The product shall not change in length by more than 0.5% over the temperature range -18 to +32 °C (-0.4 to +90 °F) and relative humidity of 50 to 80%, determined in accordance with 4.5.2.

3.3.4 Color: The product shall be any color readily visible against the specified composite tape, except that neither black nor colorless, transparent films shall be supplied.

3.4 Quality:

The product, as received by purchaser, shall be uniform in quality and condition, smooth, and free from foreign materials and from imperfections detrimental to the handling and application of the composite material during machine layup. The carrier shall be free from unbonded fibers or cuttings, either at the trimmed edges or on the surface. The trimmed edges shall have no notches, tears, or slivers. Wrinkles, overlaps, and folds are not acceptable.

3.5 Tolerances:

Shall be as follows:

3.5.1 Thickness: As specified in the applicable detail specification.

3.5.2 Width: As ordered, with the following tolerances; all widths are available unperforated; only the 4.000 inch (101.60 mm) width is available perforated:

3.5.2.1 0.500 inch $\pm$ 0.010 (12.70 mm $\pm$ 0.25) to 3.000 inches $\pm$ 0.010 (76.20 mm $\pm$ 0.25)

3.5.2.2 3.500 inches, +0, -0.005 (88.90 mm, +0, -0.13)

3.5.2.3 4.000 inches, +0, -0.005 (101.60 mm, +0, -0.13)

3.5.2.4 5.000 inches $\pm$ 0.015 (127.00 mm $\pm$ 0.38) to 12.000 inches $\pm$ 0.015 (304.80 mm $\pm$ 0.38)

3.5.3 Length: 440 yards $\pm$ 1 (402 m $\pm$ 1).