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400 Commonwealth Drive, Warrendale, PA 15096-0001

# AEROSPACE MATERIAL SPECIFICATION

**SAE**

**AMS 3805A**

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Superseding AMS 3805

Submitted for recognition as an American National Standard

## CLOTH, DUCK, ARAMID (META), NON-MELTING

### 1. SCOPE:

#### 1.1 Form:

This specification covers an aromatic nylon fabric in the form of cloth.

#### 1.2 Application:

This product has been used typically for the manufacture of seat cushion covers, armor vest covers, and accessories, but usage is not limited to such applications.

#### 1.3 Safety - Hazardous Materials:

While the materials, methods, applications, and processes described or referenced in this specification may involve the use of hazardous materials, this specification does not address the hazards which may be involved in such use. It is the sole responsibility of the user to ensure familiarity with the safe and proper use of any hazardous materials and to take necessary precautionary measures to ensure the health and safety of all personnel involved.

### 2. APPLICABLE DOCUMENTS:

The following publications form a part of this specification to the extent specified herein. The applicable issue of referenced documents 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 1424 Tear Resistance of Woven Fabrics by Falling-Pendulum  
(Elmendorf) Apparatus

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AMS 3805A

SAE

AMS 3805A

**2.2 U.S. Government Publications:**

Available from Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

PPP-P-1133 Packaging and Packing of Synthetic Fiber Fabrics  
FED-STD-4 Glossary of Fabric Imperfections  
FED-STD-191 Textile Test Methods  
DPSC Handbook 4120.1 List of Armed Services Colors for Clothing, Textiles,  
and Equipment

**2.3 Other Publications:**

Available from Federal Trade Commission, Washington, DC 20580.

Textile Fiber Products Identification Act, Rules and Regulations

**3. TECHNICAL REQUIREMENTS:****3.1 Material:**

The cloth shall be woven from 1.5 to 2.0 denier yarn by 1.5 to 2.0 inch (38 to 51 mm) fiber length non-melting, aromatic polyamide fibers.

3.1.1 Yarn: Shall be a two-ply polyamide yarn, smooth and free from spinning imperfections.

3.1.2 Weave: Shall be plain, 1 up and 1 down.

3.1.3 Finish: Shall be scoured, heat set, and given an antistatic finish.

3.1.4 Color: Shall match DPSC Handbook 4120.1 Color Code Sage Green 1565 and (R) shall be produced through the use of solution dyed fibers.

**3.2 Properties:**

(R)

The finished cloth shall conform to the requirements shown in Table 1; tests shall be performed on the cloth supplied and in accordance with test methods in FED-STD-191, except as otherwise specified herein.

AMS 3805A

SAE

AMS 3805A

TABLE 1 - Requirements and Test Methods

Paragraph	Property	Requirement	Test Method
3.2.1	Weight, minimum	6.5 ounces per square yard (220 g/m <sup>2</sup> )	5040 & 5041
3.2.2	Thread Count, minimum		5050
3.2.2.1	Warp	47 per inch (25.4 mm)	
3.2.2.2	Filling	47 per inch (25.4 mm)	
3.2.3	Breaking Strength, minimum		5104
3.2.3.1	Warp	150 pounds force per inch (26.3 kN/m)	
3.2.3.2	Filling	150 pounds force per inch (26.3 kN/m)	
3.2.4	Tearing Strength, minimum		ASTM D 1424
3.2.4.1	Warp	20 pounds force per inch (3.5 kN/m)	
3.2.4.2	Filling	20 pounds force per inch (3.5 kN/m)	
3.2.5	Blocking, minimum	There shall be no sticking of cloth to cloth	5872 (See 3.2.5.1)
3.2.5.1	Blocking Test: Time of exposure shall be 24 hours $\pm$ 0.5 at 60 °C $\pm$ 1 (140 °F $\pm$ 2), using a 6-pound (2.7-kg) weight.		
3.2.6	Dimensions:		
3.2.6.1	Width: Shall be as specified by purchaser.		
3.2.6.2	Length of Cut: Continuous pieces shall be not less than 80 yards (73 m) in length. Pieces less than 80 yards (73 m) in length will be acceptable up to 10% of the quantity ordered, provided that no piece is less than 25 yards (23 m) in length. Not more than two pieces less than 80 yards (73 m) in length shall be included in any one roll.		