AEROSPACE MATERIAL SPECIFICATION

AMS3907™/1

Issued 1985-10
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Cloth, Aramid
5 oz per sq yd (170 g/m^2) Basket Weave

RATIONALE

AMS3907/1 has been reaffirmed to comply with the SAE Five-Year Review policy.

1. SCOPE:

1.1 Form: This specification covers one weight and type of weave of aramid cloth.

1.2 Application: Primarily for use in the fabrication of special clothing.

1.3 Classification: Shall consist of 5 oz par sq yd (170 g/m^2) aramid cloth with a basket weave and the following classes:

Class 1 - Type 456 fiber
Class 2 - Type 452 fiber
Class 3 - Type 457 fiber

2. APPLICABLE DOCUMENTS: See AMS 3907.

3. TECHNICAL REQUIREMENTS:

3.1 Basic Specification: The complete requirements for procuring the cloth described herein shall consist of this document and the latest issue of the basic specification, AMS 3907.

3.2 Properties: Shall conform to the requirements of Table I and the following:

3.2.1 Yarn: Shall be spun into singles.

3.2.2 Flame Resistance: The flame from a Meker burner shall not pass from the flame side to the other side of a cloth due to the cloth breaking open.

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3.2.3 Color: The color of each cloth shall be obtained by the use of dry spun solution dyed fiber and shall be as shown below; colors shown are the manufacturer's identification number for each color:

Fiber Type	Color
457	Olive Green 106
452	Sage Green 1565
456	Sage Green 1590

3.2.3.1 Matching: The color of the finished cloth shall match the standard sample under artificial daylight having a correlated color temperature of 7,000" Kelvin + 500 and shall be a good approximation to the standard sample under incanaescent lamplight at 2,850" Kelvin ± 100.

3.2.3.2 Colorfastness: The dyed and finished cloth shall show colorfastness to light and to laundering equal to or better than the standard sample.

3.2.4 Weave: Shall be a 2 x 2 basket weave.

3.2.5 Width: Shall be not less than 45 in. (1,140 mm) inclusive of the selvages. When the cloth has shuttleless loom selvages, the width of the cloth should be as specified and shall be not less than the width of the woven cloth, excluding the selvages.

3.2.6 Nonfibrous Material: Prior to application of the antistatic finish, the cloth shall contain not more than 1.0% starch and protein including the chloroform-soluble and water-soluble material.

3.2.7 Finishing: Cloth shall be desized, scoured, heat set and given a suitable durable antistatic finish to meet the requirements of Table I,

3.2.7.1 Finishing Procedure: Cloth should be finished by a procedure equivalent to the following:

3.2.7.1.1 Scour open width on continuous scouring range at 70°C ± 3 (160°F ± 5) in the scouring solution of 0.14 oz per gal (1.0 g/L) of trisodiumphosphate and detergent.

3.2.7.1.2 Dry at 150°C ± 5 (300°F ± 9) to set construction.

3.2.7.1.3 Autoclave heat set using the following procedure:

5 min. pre-vacuum
20 min. 30 psi (207 kPa) steam
5 min. vacuum
20 min. 30 psi (207 kPa) steam
5 min. vacuum
Exhaust to air

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