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Superseding AMS3801/1A

Cloth, Parachute, Meta-Aramid, Low Modulus
4.7 (159) Weight, Twill

RATIONALE

This document is being edited to conform to existing formats and submitted for re-affirmation as a result of the 5 year review process.

1. SCOPE

1.1 Form

This specification covers one weight and one weave of low-modulus meta-aramid cloth.

1.2 Application

Primarily for use in construction of parachutes.

1.3 Classification

4.7 ounces per square yard (159 g/m²) low-modulus meta-aramid cloth with twill weave.

2. APPLICABLE DOCUMENTS

See AMS3801.

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, AMS3801.

3.2 Construction and Properties

3.2.1 Yarn

Yarn used in weaving the cloth shall be a low-modulus meta-aramid with a carbonization (char) temperature not lower than 671 °F (355 °C).

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3.2.1.1 Denier and Filament Count

The yarn shall be 200 denier \pm 15 and shall consist of 100 filaments \pm 10.

3.2.1.2 Ply

The yarn shall be 1 ply.

3.2.1.3 Twist

The final ply of yarn shall be twisted 4.0 to 4.4 turns per inch (25.4 mm).

3.2.2 Cloth

3.2.2.1 Weave

Shall be 2-up, 2-down right-hand twill.

3.2.2.2 Color

Shall be Sage Green 1565 as shown in FED-STD-595. The color shall be obtained by the use of melt spun solution dyed yarn.

3.2.2.3 pH

Shall be 5.0 to 8.0, incl, determined on the water extract of the finished cloth.

3.2.2.4 Width

The width, inclusive of selvage, shall be as ordered.

3.2.2.5 Weight

Shall not exceed 4.7 ounces per square yard (159 g/m²).

3.2.2.6 Breaking Strength

Breaking strength of unaged cloth shall be not less than 165 pounds force per inch (28 896 N/m) in both the warp and fill directions. Breaking strength after heat aging shall be not less than 85% of the unaged values in both the warp and fill directions.

3.2.2.7 Elongation

Shall be not less than 30% in the warp and fill directions.

3.2.2.8 Tearing Strength

Shall be not less than 14 pounds force (62.3 N) in the warp and fill directions.

3.2.2.9 Thickness

Shall not exceed 0.011 inch (0.28 mm).