



<b>AEROSPACE MATERIAL SPECIFICATION</b>	<b>AMS3819™</b>	<b>REV. D</b>
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Superseding AMS3819C		
(R) Cloths, Cleaning For Aircraft Primary and Secondary Structural Surfaces		

### RATIONALE

This specification is being revised to correct test methods, change the recertification period, and additional changes associated with the Five-Year Review.

#### 1. SCOPE

##### 1.1 Form

This specification covers woven, nonwoven, and knit absorbent materials supplied either as dry cloths or presaturated cloths for solvent cleaning process applications.

##### 1.2 Application

These cloths have typically been used in cleaning metallic or nonmetallic aircraft surfaces preparatory to processing operations which are sensitive to residual surface contamination, but usage is not limited to such applications.

NOTE: The technical requirements listed in Section 3 may be insufficient to determine the compatibility between cloths and transparencies.

##### 1.3 Classification

Cloths covered by this specification are classified as follows:

- Class 1 Woven cloth, composed of 100% cotton fibers, with or without added binders.
- Class 2 Nonwoven cloth, composed of 100% synthetic or blended synthetic, cotton, or cellulose materials, with or without added binders.
- Class 3 Empty classification (formerly presaturated cloths - see Form 2).
- Class 4 Knit cloth composed of 100% polyester yarn.
- Grade A For use in cleaning operations where exceptionally low residual surface contamination levels are required (as defined by Table 1 limits).
- Grade B For use in cleaning operations where low residual surface contamination levels are required (as defined by Table 1 limits).

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Form 1 Dry cloths (in individual wipes or rolls).

Form 2 Form 1 cloths contained in a presaturated wiping system, except that binders, surfactants, or other chemical treatments shall not be included. Solvents used in the presaturation process shall be designated and approved as acceptable by the purchaser.

NOTE: Supplier must ensure the solvent, cloth, and packaging used in presaturated wiping system are compatible for the duration of shelf life.

NOTE: Form 2 cloths are typically available in the following configurations:

- Perforated rolls of non-woven cloth wipers dispensed from a canister designed to minimize solvent evaporation.
- Folded woven, non-woven, or knit cloth wipers dispensed from a flexible pouch designed to reseal and minimize solvent evaporation.

1.3.1 If no classification of cloth is specified, a Grade A, Form 1 cloth of either Class 1 or Class 2 shall be the default.

## 1.4 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 document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

### 2.1 ASTM Publications

Available from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959, Tel: 610-832-9585, [www.astm.org](http://www.astm.org).

ASTM D329	Standard Specification for Acetone
ASTM D740	Standard Specification for Methyl Ethyl Ketone
ASTM D1193	Standard Specification for Reagent Water
ASTM D1776	Standard Practice for Conditioning and Testing Textiles
ASTM D1836	Standard Specification for Commercial Hexanes
ASTM D2257	Standard Test Method for Extractable Matter in Textiles
ASTM D3776	Standard Test Method for Mass per Unit Area (Weight) of Fabric
ASTM E70	Standard Test Method for pH of Aqueous Solutions with the Glass Electrode
ASTM E168	Standard Practices for General Techniques of Infrared Quantitative Analysis
ASTM G120	Standard Practice for Determination of Soluble Residual Contamination by Soxhlet Extraction

## 2.2 PRI Publications

Available from Performance Review Institute, 161 Thorn Hill Road, Warrendale, PA 15086-7527, Tel: 724-772-1616, [www.pri-network.org](http://www.pri-network.org).

PD2000	Governance and Administration of an Industry Managed Product Qualification Program
PD2103	Aerospace Quality Assurance, Product Standards, Qualification Procedure, Sealants & Associated Materials
PRI QPL-AMS3819	Products Qualified Under AMS3819

## 2.3 ISO/ANSI Publications

Copies of these documents are available online at <http://webstore.ansi.org/>.

ISO 9073-6	Textiles – Test Methods for Nonwovens – Part 6: Absorption
ANSI Z400.1/Z129.1	Hazardous Workplace Chemicals – Hazard Evaluation and Safety Data Sheet and Precautionary Labeling Preparation

## 3. TECHNICAL REQUIREMENTS

Cloths shall be manufactured to meet all technical requirements of this specification.

### 3.1 Construction

Cloths shall be oriented into a planar assembly by woven, nonwoven, or knit techniques.

### 3.2 Binder

Binding materials, if used, shall be water insoluble.

### 3.3 Color

Cloths shall be white or off-white.

### 3.4 Cleanliness

Cloths shall be visibly clean and free of discoloration, embedded particles, oils, greases, and other non-specification materials, determined in accordance with 4.7.2.

### 3.5 Workmanship

3.5.1 Cloths shall be virgin material (material that has never been used nor reclaimed for use).

3.5.2 Cloths shall be free of broken, starched, stiffened, or napped fibers, and free of uneven, ragged, or frayed edges that result in excessive linting. Class 2, Form 1 cloths may contain uneven edges created by the separation (i.e., perforation attachment points) of individual sheets from perforated rolls.

3.5.3 Class 1, Form 1 cloths shall be scoured to remove natural oils.

3.5.4 Class 4, Form 1 cloths shall be laundered to remove natural and/or knitting oils.

### 3.6 Shelf Life

Shelf life (Form 2 only) shall be a minimum of 12 months from the date of packaging when stored in the original, unopened containers at a temperature between 40 °F (4.4 °C) and 95 °F (35 °C).